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**ITALIAN UNDERGRADUATE STUDENTS COMPREHENDING
ECONOMICS AND BUSINESS TEXTS
IN
ENGLISH AS A FOREIGN LANGUAGE**

**A CASE STUDY OF LANGUAGE-CONCEPTUAL TRANSFER
STRATEGIES USED IN READING DOMAIN-SPECIFIC TEXTS**

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ABSTRACT

Italian Undergraduate Students Comprehending Economics and Business Texts in English as a Foreign Language. A Case Study of Language-Conceptual Transfer and Strategies used in Reading Domain-Specific Texts.

Christina Muriel Samson (February 2009)

This study, within the Vygotskyian constructivist socio-cultural developmental framework, investigates the interdependence of general and domain-specific conceptual knowledge, cognitive and metacognitive strategies, attitude, motivation and context in the process of bidirectional Italian↔English transfer in Italian undergraduates comprehending domain-specific texts in the Faculty of Economics, University of Florence, Italy. The method adopted is primarily qualitative, with quantitative support.

From October 2004 to April 2005, subjects wrote pilot multiple choice question tests on basic and advanced Italian economics texts. The same subjects underwent tests in Italian and English, containing translation equivalent or similar concepts in English economics and business texts. Descriptive and non-parametric statistics, sensitive to monotonic relationships between performance and proficiency test scores as variables, measured the differences between tests taken under matched circumstances. Using an item difficulty analysis, the scores were interpreted qualitatively by textual analysis, using Geeian and Hallidayian approaches. Their purpose was to investigate construal and derivation of meaning in different genres and texts types. In April 2005, the subjects answered a cognitive and metacognitive reading strategies questionnaire; in May 2005, they completed a attitude and motivation questionnaire. The data were triangulated with information from interviews of Faculty members in May 2005.

The findings show undergraduate level transfer is not an automatic process. It is influenced by several variables operating synchronically and synergistically, calling for a multi-perspective view of transfer which I have defined as contextual syncretism. Within syncretism, variation in any of the variables impacts significantly on reading performance and proficiency. The data show transfer is affected by the undergraduates' capacity to reframe domain-specific concepts when applying them to novel domains in Italian and in English. Hence transfer is interrelated with learning strategies and pedagogy, as well as the Italian and English curricula. All these issues are linked to contextual factors regarding Faculty management and planning decisions impacting on the Faculty of Economics' EFL course. Due to its small size, this study cannot provide generalisations. It provides, however, opportunities for further research.

LIST OF ACRONYMS

BICS	Basic Interpersonal Communicative Skill
CALP	Cognitive and Academic Language Proficiency
CUP	Common Underlying Proficiency
EFL	English as a Foreign Language
ESL	English as a Second Language
FL	Foreign Language
FLL	Foreign Language Learning
IELTS	International English Language Testing System
LA	Language Acquisition
LL	Language Learning
L1	Native Language (Italian)
L2	Second Language
MCQ/s	Multiple Choice Question/s
MUR	Ministry of Universities and Research
SLA	Second Language Acquisition
TL	Target Language
UNIFI	University of Florence
ZPD	Zone of Proximal Development

TABLE OF CONTENTS

ACKNOWLEDGEMENTS	2
ABSTRACT	3
LIST OF ACRONYMS	4
 CHAPTER 1	
INTRODUCTION	
1.1 Research problem	9
1.2 Context of the study	12
1.3 Aims of this study	12
1.4 Research questions	13
1.5 Outcomes and recommendations	14
1.6 Overview of the thesis	14
 CHAPTER 2	
THE UNIVERSITY OF FLORENCE – FACULTY OF ECONOMICS AND ITS EFL COURSE	
2.1 The context in the Faculty of Economics – UNIFI	17
2.2 The EFL context in the Faculty of Economics – UNIFI	18
2.2.1 The EFL course and the impact of the Faculty’s management decisions	19
2.2.2 The EFL examination	20
2.2.3 The outcome of the Faculty’s management and planning choices	20
2.3 Concluding remarks	21
 CHAPTER 3	
L2/FOREIGN LANGUAGE LEARNING AND TRANSFER: SOME THEORETICAL FOUNDATIONS	
3.1 Introduction	22
3.2 SLA, L2 and FL learning	22
3.3 ESL vs. EFL	24
3.4 Language learning approaches and transfer	25
3.4.1 Transfer as L1 interference	26
3.4.2 Transfer within the psycholinguistic approach	27
3.4.3 The threshold hypothesis	29
3.5 BICS and CALP	30
3.5.1 Moving beyond the BICS/CALP dichotomy	31
3.6 L1 development and reading skills	34
3.7 Genre, discourse and text types	36
3.8 What is a concept?	40
3.8.1. Reading within wider contexts	41
3.9 Cognitive development	42
3.9.1. Generic vs. specific knowledge domains	42

3.9.2. How are concepts formed?	43
3.10 Stages of cognitive development	45
3.10.1. From the preoperational to the concrete stage	45
3.10.2. From the concrete to the abstract stage	47
3.11 Instruction explains development	48
3.11.1 The manifold functions of instruction: Vygotsky vs. Piaget	49
3.11.2 Everyday concepts vs. scientific concepts	50
3.12 The interdependence of Language and Thought: a dynamic relation	51
3.12.1 Sense and meaning in concept formation	52
3.13 Concluding remarks	53

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 Arguments for my approach	56
4.2 Research design	57
4.3 Discourse analysis approach	58
4.4 Research method	66
4.4.1 Case study	66
4.4.2 Relativism and realism	68
4.4.3 Contextual syncretism	69
4.4.4 Triangulation	71
4.4.5 Single embedded case studies	71
4.4.6 Validity: a core issue	72
4.4.7 A mixed methodology	73
4.4.8 Questionnaires	74
4.4.9 Interviews	76
4.4.10 In depth semi-structured interviews	77
4.4.11 Data-generating instruments	78
4.4.12 Planning the data analysis	84
4.5 Concluding remarks	85
4.6 Research Ethics	86

CHAPTER 5

DATA ANALYSIS

5.1 Target subjects	87
5.2 Research instruments - sub-unit analysis: excerpts A, B, C	87
5.2.1 Pilot study – tests A1, A2, B3, B4, C5 and C6 – quantitative analysis	90
(a) Descriptive statistics	90
Test A1	90
Test B3	91
Test C5	91
Test A2	93
Test B4	94
Test C6	94
5.3 Main study. Research instruments: Genre reading proficiency	96
5.3.1. Main Study. Text D: Generic English news article	97
5.3.2. Main study. Text E: English economics textbook excerpt	98
5.3.3. Main Study. Text F: Italian economics textbook excerpt	99

5.3.4.	Main Study. Text G: Business news article	99
5.3.5	Main study – tests D1, D2, E3, E4, F5, F6, G7 and G8. Quantitative analysis	100
	(a) Descriptive statistics	100
	Test D1	102
	Test E3	102
	Test F5	102
	Test G7	102
	Test D2	107
	Test E4	107
	Test F6	108
	Test G8	108
5.4	Overall review	109
	a) Pilot study	109
	b) Main study	111
5.5	Descriptive statistics: item difficulties	113
	a) Item difficulties: main study	113
	Text D – generic English news article	116
	Text E – English economics textbook excerpt	122
	Text F – Italian economics textbook excerpt	130
	Text G – Business news article	140
	b) Item difficulties: pilot study	146
	Text B – Italian economics textbook excerpt	148
	Text C – English economics textbook excerpt	157
5.6	Main study - Questionnaire 1, Questionnaire 2. Quantitative analysis	163
5.6.1	Questionnaire 1	163
	A. Cognitive strategies applied to reading a text in Italian	164
	C. Cognitive strategies applied to reading a text in English	167
	B. Metacognitive strategies applied to reading a text in Italian	169
	D. Metacognitive strategies applied to reading a text in English	171
5.6.2	Questionnaire 2	173
	a) Reading habits	173
	b) Reading motivation	174
	c) Reading strategies and motivation at secondary school level	174
	d) Reading strategies at university level	175
	e) Learning English in and/or outside university	176
	f) English learning motivation	177
	g) Opinion on English economics business courses and services at university level	178
5.7	Main study – Interview 1, Interview 2	179
5.7.1	Interview 1	179
5.7.2	Interview 2	180
5.8	Key findings emerging from data analysis	180

CHAPTER 6

DATA INTERPRETATION

6.1	Introduction	185
6.2	Research Question 1	187
6.3	Research Question 2	194
6.4	Research Question 3	198

6.5	Research Question 4	201
6.6	Research Question 5	206
6.7	Research Question 6	214

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1.	Aims of the study	218
7.2.	Conclusions and Implications	219
7.2.1	The impact of variables on transfer	219
7.2.2	Transmission teaching and receiving knowledge: precluding higher cognitive functions	220
7.2.3	The EFL competence-model curriculum and the exclusion of writing	221
7.2.4	Institutional planning and EFL reading proficiency: a close relation	221
7.2.5	Pedagogy, Italian L1 and EFL curricula and inter-genre reading proficiency	223
7.2.6	Specific cognitive and metacognitive reading strategies as means toward reading comprehension and transfer	224
7.2.7	The interrelation between attitudinal, motivational and contextual factors	225
7.3	Key findings	226
7.4	The value and contribution of my research	228
7.5	Recommendations	228
7.5.1	The staffing issue	228
7.5.2	The curricula issue	229
7.5.3	The pedagogy issue: from the quantitative to the qualitative method	231
7.5.4	The impact of qualitative pedagogy on learning EFL at tertiary level	232
7.5.5	Modes of assessment	233
7.6	Suggestions for further research	233

BIBLIOGRAPHY	236
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APPENDICES	259
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CHAPTER 1

INTRODUCTION

1. 1 Research problem

Internationally, university students are usually required to read texts in foreign languages. Reading such texts creates a wide variety of language-focussed issues related to decoding the interrelated textual, grammatical and semantic features of text construction. This also occurs in the Faculty of Economics at the University of Florence, Italy, the context wherein my research considers some ways of improving academic teaching to, and reading of domain-specific texts by Italian undergraduate students for whom English is a Foreign Language (FL).

The literature on teaching and learning English as a Foreign Language (EFL) at tertiary level reveals a lack of distinction between EFL and learning of English as a Second Language (ESL), although distinctions are more explicitly made in the wider language education/applied linguistics context. Specifically, EFL is taught and learnt as part of educational, occupational and/or recreational purposes in countries where the official language is not English. ESL, by contrast, is used for various purposes where English has an official, educational, or other role (McArthur 1992).

This lack of distinction at a tertiary level, however, has led to vast literature ignoring the different constraints associated with the social context regarding, for instance, attitude, motivation, institutional managing, curricula planning, pedagogy and learning methods, all affecting non-native language learning and acquisition. It has also shaped many scholars' narrow perspective on the significance of the interrelation between such variables and the process of bidirectional Italian (L1) and EFL domain-specific language-conceptual knowledge transfer whilst reading different genres and text types.

By domain-specific language-conceptual knowledge transfer I refer to bidirectional transfer within the domains of economics and business. Genre refers to the language used in the conventionalised communicative setting (Bhatia 2004) of economics and business which expresses the disciplines', social institutions' or writers' purposes or goals. Text types, moreover, are characterised by language serving the communicative function and certain linguistic patterns of the discourse of Economics and Business (Werlich 1976) (§Ch.3-3.7).

Transfer has been analysed extensively at school level (Jimenez 1997; Jimenez et al. 1995, 1996; Garcia et al. 1998; Snow et al. 1998; August and Hakuta 1997, to mention a few) and has been seen as an automatic linguistic process without any explanatory or predictive power, or as part of the cognitive skills learners use to assist comprehension or production while learning a FL. It has also been seen as interference of L1 on EFL learning and use. Consequently, the ability of tertiary students in using L1 conceptual knowledge has barely been included in the array of research variables surrounding EFL text processing.

Although in the mid-1990s new configurations and analytic designs produced analyses of the contribution of L1 literacy and L2 knowledge to L2 reading proficiency, EFL was not specifically researched and the variables considered were few. Indeed, part of the failure to provide a satisfying EFL model thus far derives from the limitation of conceptualizing a multidimensional process within two dimensions. Research, by contrast, should account for literacy knowledge and EFL proficiency against the backdrop of an array of other variables, as Bernhardt (2005) argues.

Indeed, the interrelation of factors such as domain-specific knowledge, cognitive and metacognitive reading strategies, context, attitude and motivation (§Ch.3) in the transfer process still tend to be ignored by most research. Specifically, cognitive strategies involve reference to one's prior generic and domain-specific conceptual knowledge, lexical and grammatical knowledge before and whilst reading a text. Metacognitive strategies have instead the function of monitoring or regulating one's cognitive strategies.

Hence, there is a paucity of studies on how tertiary level student readers are taught EFL and how they apply/do not apply, for instance, the above strategies, as Brantmeier (2006, 2001), Bernhardt (2005) and Young (2003) advocate.

I believe that transfer is interrelated with many variables, which diversely affect one another and impact on transfer itself. This calls for a multi-perspective view of the process. The question, following Bernhardt (ibid.), is not only *if* Italian L1 and EFL conceptual knowledge transfers, but also under *what conditions*, and in *which contexts* the process takes place. Most research, by contrast, continues to limit its scrutiny to one or two usually unrelated variables, thus generating a gap in the database of EFL research.

Given the paucity of multiple comprehension measures of factors affecting bidirectional L1 and EFL conceptual transfer at tertiary level, and my belief that conceptual transfer is not merely a linguistic process but rather a complex conceptual, culturally shaped one (O'Malley and Chamot 1990; August 2006; Brantmeier 2006; Bernhardt 2005, 2003, to mention a few), the intention of this case study is to contribute to filling the lacuna in EFL reading comprehension research involving tertiary level readers (Jiang and Kuehn 2001; Cummins 1992; Wright and Kuehn 1998).

To this end, this study investigates, qualitatively and quantitatively, the interdependence of several variables whilst Italian university students read genre-based domain-specific texts¹. The focus, within the Vygotskyian constructivist socio-cultural developmental framework, is on the interrelation of general and domain-specific conceptual knowledge, cognitive and metacognitive strategies, attitude, motivation and context in the process of bidirectional Italian and English transfer, in the context-reduced environment of the Faculty of Economics-University of Florence, Italy.

Furthermore, as I am a fluent compound bilingual Italian-English speaker, fully competent to process and interpret in both languages the data I have collected, this study, unlike many others (Carpenter and Just 1977; Goodman 1968; Gough 1972; LaBerge and Samuels 1974; Rumelhart 1977) is not affected by the researcher's monolinguality. Monolinguality has forced many researchers to assess readers only in L2 because they do not know their subjects' L1, as Brantmeier (2006) underlines. This results in research and models of reading being principally conducted in, and based on, English.

The theoretical framework underpinning this research is Vygotsky's (1962, 1978) constructivist socio-cultural developmental theory. This considers concept formation and knowledge construction as an active and ongoing process taking place through the use of language in social relations. From this perspective, Vygotsky's theory is relevant to my study, since I see the subjects of my research as constructing their own understanding by using and transferring what they already know in their L1 to EFL, while embedded in a specific context-reduced environment.

¹ In other words, texts of diverse genres belonging to the domains of Economics and/or Business.

1.2 Context of the study

The description of the context-reduced environment wherein the subjects are situated has a multi-fold significance in this study (§Ch.2).

Firstly, it focuses on the pedagogy applied in teaching the subjects economics and business concepts in their primary language/L1 – Italian.

Secondly, it explores the impact such pedagogy can have in L1, since L1 reading performance is considered a variable involved in the tertiary level subjects' EFL reading proficiency.

Thirdly, it investigates how pedagogy affects the subjects' cognitive and metacognitive strategies in L1 as well as in EFL, and consequently their bidirectional Italian-English domain-specific conceptual knowledge transfer whilst reading genre-based Italian and EFL texts for academic and professional purposes. Pedagogy is further seen as related to the subjects' attitude and motivation to read in EFL (§Ch.6).

There is, thus, an interdependence between the context-reduced environment itself, pedagogy, (Ryan and Deci 2000), and other variables that I think should be considered within the wider context of what I have called *contextual syncretism* (§Ch.4, 6, 7) and within which Italian↔EFL transfer takes place.

1.3 Aims of this study

The overall aim of this study is therefore to analyse and interpret, qualitatively and quantitatively, the features of interdependence and transfer between conceptual knowledge in Italian L1 and EFL (§Ch.5 and 6). The focus will be on a small, representative sample of subjects whilst reading L1 and EFL domain-specific texts (economics and business) of different genres and text types in the context-reduced Economics-UNIFI environment (§Ch.2 and 4).

More specifically, in my attempt to account for the L1↔EFL conceptual transfer process, I will apply the above mixed methodology at several stages throughout the study to determine:

- (i) **The relations between the understanding and use of economics and business concepts by Italian L1 students and their corresponding understanding and use of these concepts in EFL as a target language.**
- (ii) **The cognitive and meta-cognitive reading strategies used by these students to understand texts in different genres within the field of economics and business as an academic discipline.**
- (iii) **The linkages between attitudinal, contextual factors and development of the subjects' EFL reading proficiency.**

My assumption is that different levels of reading competence of Italian L1 readers of economics texts in Italian correlate, at least in part (i.e. conceptual transfer is but one factor), with different degrees of bidirectional Italian↔English conceptual knowledge transfer when reading texts of the same or different genres in EFL.

Furthermore, as the framework adopted in this study is a socio-cultural developmental one, the students' reading competence and proficiency will be contextualised by taking into consideration the context, the students themselves, their attitude towards the context and their reading activity in L1 and EFL in the different types of data collected.

1.4 Research questions

Arising from the above considerations, my primary research questions (RQs) are:

- 1. Is there a transfer between the subjects' domain-specific conceptual knowledge of the content of Italian texts and their comprehension of translation equivalent or similar concepts in English texts?**
- 2. Is there a relation between the capacity of the Italian L1 subjects to use the inherent structural components when reading and comprehending an Italian text and their reading and derivation of meaning in an equivalent EFL text?**
- 3. Is there a monotonic² relation between these subjects' reading proficiencies across different genres in English?**

²A strictly monotonic correspondence or association between two variables observed over n instances would have the ranks of the ordered values in strict correspondence, but the values may change irregularly. A generally positive

- 4. Are cognitive and meta-cognitive reading strategies used by the subjects whilst reading in their Italian L1 applied to reading similar texts in EFL?**
- 5. Are there linkages between attitudinal and contextual factors, in the subjects, and the development of their EFL reading proficiency?**
- 6. If so, what are the essential features and significance of Italian↔English transfer in the context of this research?**

Arising out of these RQs are several secondary questions (§Ch.4 for details).

1.5 Outcomes and recommendations

The intended outcomes of this study, deriving from my data analysis (§Ch.5) and from the interpretation of my findings (§Ch.6) will be to draw conclusions and to consider implications (§Ch.7) concerning the impact of diverse variables on bidirectional Italian↔English transfer as related to attitudinal, motivational and contextual factors involving the UNIFI-Faculty of Economics' EFL institutional planning, curricula and pedagogy. These conclusions and their implications will, finally, allow me to address the Faculty of Economics and its EFL course by making some recommendations (§Ch.7) regarding the teaching of economics and EFL in the context defined by this study (§Ch.6 for detail).

1.6 Overview of the thesis

Chapter 2

Context of the Faculty of Economics – UNIFI and of its EFL course

In this chapter I provide a description of the UNIFI Faculty of Economics context-reduced environment and the contextualisation of the Faculty's EFL course.

monotone relationship implies an increase in one variable is more often than not associated with an increase in the associated variable. A negative monotonic relationship would imply an increase in one variable is usually associated with a decrease in the associated variable (Personal communication by Prof. Tim Dunne, Department of Statistical Sciences, University of Cape Town 15.02.2009).

Chapter 3

L2/Foreign Language Learning and Transfer: Some Theoretical Foundations

This chapter focuses on the theoretical foundations related to L2/FL learning, ESL/EFL and the process of transfer. In discussing these theories, I critique their deficiencies in the light of Vygotsky's socio-cultural developmental theory. This I take as the framework for investigating the interdependence between cognitive processes, metacognitive strategies, attitude and motivation whilst reading EFL genre-specific texts.

Chapter 4

Research Design and Methodology

In this chapter, I motivate my use of a mixed qualitative and quantitative methodology and illustrate my main and secondary research questions (RQs). A description of the research method, including the data generating instruments, is followed by the data planning analysis.

Chapter 5

Data Analysis

In this chapter, all the data collected in the pilot and main studies are analysed quantitatively by statistical processing and then interpreted qualitatively. The quantitative analysis is performed comparing the scores of each item and of the data as a whole. These are triangulated by the qualitative analysis of the reading score variances, the reading difficulty items, the students' responses to questionnaires and interviews of academics.

Chapter 6

Data Interpretation

In this chapter, I present the relevance of the data analysis findings. I focus on these by discussing why and how the data assist me in answering the Research Questions regarding the features of bidirectional Italian↔EFL transfer. The innovation of the findings is discussed at the end of the chapter.

Chapter 7

Conclusions and Recommendations

The final chapter provides conclusions to this research. It discusses the implications and significance of the study's key findings and, based on these results, gives a series of recommendations as to possible changes in the EFL curriculum to increase tertiary level EFL

reading proficiency of genre-specific texts. The chapter ends with suggestions for further research.

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CHAPTER 2

THE UNIVERSITY OF FLORENCE – FACULTY OF ECONOMICS AND ITS ENGLISH AS A FOREIGN LANGUAGE COURSE

2.1 The context in the Faculty of Economics - UNIFI

Prior to their enrolment in the first academic year, the Faculty of Economics at UNIFI provides students with various self access tests online, to determine whether they are competent to study Economics. By law, however, all Italian universities must admit anyone who passes the standard national exam in their secondary school final year, given the Italian policy that everyone is entitled to proceed to tertiary education.

This, however, generates serious problems at an institutional level as well as for EFL curriculum design and pedagogy. At an institutional level, the generally insufficient funds and facilities provided lead to under-staffing and to a reduction of the number of EFL courses offered during each semester, thus creating over-crowded classrooms.

The UNIFI Faculty of Economics undergraduate curriculum, in common with the rest of universities in Italy, consists of a three year, independent study experience, since class attendance is not mandatory. Students may prepare for exams (mostly oral) autonomously, on the basis of a course prospectus, a book list and material downloadable from academics' university websites. The language of teaching and learning is exclusively Italian.

Lectures are attended either by those motivated to pass their exams and graduate within the required three years, or by those who essentially consider lectures a support to textbooks, because they have received little or no feedback from lecturers on their progress within the semester period. Nevertheless, most courses are overcrowded because of the management, staff resourcing and planning choices of the Faculty, all of which affect the pedagogy in L1.

This pedagogy is based on the objectivist tradition, which considers knowledge as de-contextualised, which, following Biggs (1996), is a product to transmit and to be passively received and stored by the students attending the courses. This pedagogy is based on rote learning (Biggs *ibid.*; Brown, Collins and Duguid 1989) and excludes or reduces to the minimum any active form of interaction in the classroom.

The passive receipt of domain-specific conceptual knowledge in L1 and the unstructured study experience characteristic of the UNIFI learning environment requires, on the one hand, a good degree of motivation, perseverance and self-management skills by the students. On the other hand, the pedagogy and type of learning described above leads to a high drop-out rate between the first and second academic years: at a national level, of 338,036 students enrolled in 2003/2004 there was a 20.8% drop-out rate (MUR - Ministry of University and Research, 2006). Recent surveys (Cingano and Cipollone 2007), though, including different variables such as family and educational background, classify Italy as one of the worst performers among developed countries – OECD members – with its 58% drop out rate, between the first and second academic year, against an OECD average of 30%.

At the University of Florence, where the current enrolment (2005/2006) is 56,600 students, the drop-out rate has reached 39.3% in the second academic year. In the Faculty of Economics the rate has soared to 46.3%. Chiandotto and Giusti (2004) suggest the reason might to be found in the lack of motivation on the part of students, who, unlike their colleagues in the Faculties of Medicine and Architecture, do not undergo a preliminary selection test. They therefore enrol and try their luck in the Faculty of Economics. This means that those who attend classes or manage to graduate can then be considered “survivors” (ibid.).

2.2 The EFL context in the Faculty of Economics – UNIFI

Since 2004 the EFL course in the Faculty of Economics UNIFI has become mandatory for some of the economics/business courses. This means that EFL is among the examinations students must have passed before handing in their final dissertation and qualifying to graduate. The course has a high attendance rate with, on average, a lecturer-student ratio of 1:50 which makes effective interaction in class hardly possible. The ratio is often reduced to 1:35, if the academics repeat the same lecture six times.

Attendance is high, although, following the EU Language Framework requirements, students must be enrolled in their second academic year, possess a partial B1 (pre-intermediate) level of proficiency in EFL, and choose a second EU foreign language either from Spanish, French or German. The high demand for English is caused not only by the students' awareness of the primary role of English for professional and academic purposes in Italy, within the EU, and elsewhere, but also by its strong instrumental value for them (§Ch.5 and 6).

Although the partial B1 EFL level is a pre-requisite to access the EFL course, the students still bring to the classroom different learner backgrounds and EFL levels. For instance, the length of time they have studied English at school before University can vary from a minimum of three to a maximum of eight years, according to the type of high school they attended. The students therefore form heterogeneous classes in terms of their respective levels of proficiency in English.

2.2.1 The EFL course and the impact of the Faculty's management decisions

Flowing from this, the EFL course comprises two hours per week lecturing students already at a B1 level of EFL. In other words, they must already possess pre-intermediate grammatical and structural knowledge which will already allow them, according to the EU Language Framework, to understand written texts of generic or working environment topics, and the description of events, plans and feelings included in personal letters. If the students are not yet at the B1 level, they are advised to attend appropriate English courses in the UNIFI inter-faculty Language Centre.

The management and planning of how to allocate resources at UNIFI-Economics, furthermore, have impacted on the EFL curriculum, pedagogy and learning methods. Specifically, the EFL curriculum's official formative objective – accessible on the Faculty's Homepage (www.cce.unifi.it) – is attaining only a partial B2 (EU Language framework) EFL level competence³ in reading comprehension and oral performance in English for specific purposes, that is, economics and business. Under-staffing and the high attendance rate of the EFL course, due to English being a FL and not an ESL, have also led to the undergraduate convenor's decision to exclude writing from the curriculum. Writing tasks would need monitoring and assessment, which are labour intensive and not cost effective for the Faculty's management.

These institutional decisions have also affected the pedagogy. This is not focussed on student-centred and task-based methodologies, but on training and on the students' capability of doing things in the most efficient and appropriate way. This means reading economics textbook excerpts, or business news articles texts, in overcrowded classes wherein interaction is reduced to the minimum over the twelve weeks of each semester. The impact of the institutional

³ The EFL curriculum seems to refer to Chomsky's (1965) meaning of 'competence', i.e. the unconscious knowledge that speakers have of the grammatical features of the language(s) they speak. However, EFL involves learning through the conscious process of accumulating knowledge of the vocabulary and grammar of the language rather than acquiring the gradual ability in a language by using it naturally in communicative situations (Yule 2002: 191). It would therefore be appropriate to refer to EFL 'proficiency' instead.

decisions on the EFL course shows, following Lea and Street 1998 and Alvermann et al. 1998, that the nature of literacy practices is actually embedded in ideological power relations even if seemingly absent.

2.2.2 The EFL examination

The EFL examination (granting 6 credits) comprises a reading comprehension 30 minutes test and an oral examination on the comprehension of various business text type articles. Students can access the oral examination only after passing the written test. This is based on economics textbooks excerpts in English and it includes 20 grammatical multiple-choice questions (MCQs) and 4 informational MCQs. The examination takes place nine times over the whole academic year, but unsuccessful students can sit for it once per two consecutive sessions. If they fail it consecutively twice, they must skip an entire examination session.

The students' preparation towards the reading comprehension examination is based on superficial browsing of the textual and semantic features of the texts. Writing and discourse practice is absent from the undergraduate EFL curriculum. In addition, very little time is dedicated to discourse characterising economics and business genres and/or text types, and to how semantic units are formed and create networks of meaning across texts. Little attention is paid to grammar, the assumption being that students with an EFL B1 level should already possess sufficient grammatical knowledge. If students have lacunas, these are to be filled by revising grammatical issues on their own. The same considerations are extended to the use of cognitive and metacognitive reading strategies.

2.2.3 The outcome of the Faculty's management and planning choices

The outcome of the Faculty's management and planning choices suggests the EFL course is not granted the necessary resources, since it is actually considered an add on course, although it is officially mandatory. The above choices seem to match the assumption, on the part of the economics staff, whose views might only be subjective (§Appendices J and K - Interview 1 and 2), that academic literacy is, according to Street's (1993, 1998) autonomous model, a set of skills that can be easily transferred from one context to another without appropriate assistance. In other words, bidirectional Italian↔English domain-specific conceptual transfer is to be considered an automatic process and not something to be learnt, even at tertiary level (§Ch.5, 6 and 7).

The outcome of this difficult situation is that those who attend regularly tend to have a favourable attitude towards studying English. They are, however, a minority. In 2005/2006, only 7.7% students attended nearly all twelve EFL lectures and/or course per semester. Instead 53% chose self preparation for the written and/or oral exam by attending a maximum of three lectures. This resulted in a high percentage – 65% – of failure in the EFL written or oral examination (www.cce.unifi.it).

2.3 Concluding remarks

The above description of the context which provides an understanding of why students are not sufficiently motivated to read in EFL lead me to predict that the EFL curriculum and pedagogy are doomed to fail, if not significantly modified.

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CHAPTER 3

L2/FOREIGN LANGUAGE LEARNING AND TRANSFER: SOME THEORETICAL FOUNDATIONS

3.1 Introduction

In this chapter, I firstly underline how important distinctions between SLA, L2 and FL, and/or between language acquisition and learning have often been blurred by the use of SLA as an umbrella term. Secondly, I focus on models of learning which have extensively characterised SLA. Many of these, until the 1980s, were not socially sensitive due to the limited importance they gave to social context and social relations in FLL processes (Davis 1995; Long 1997; Ellis 1997). Thirdly, such models of learning, defined as ‘computational’ by Lantolf (2001, 2006) have impacted negatively on the analysis of bidirectional conceptual knowledge transfer from a L1 to a FL.

I finally attempt to draw together the main socio-cultural-linguistic approaches which consider how learners, also at a tertiary level, internalise new linguistic forms and structure their conceptual knowledge in the process of acquisition and of bidirectional transfer between L1 and EFL.

3.2 SLA, L2 and FL learning

In the past sixty years, the field of SLA has developed enormously. Published research has expanded our understanding of the complexity and the range of SLA tasks with a growing number of empirical studies (Cziko 1978; Clarke 1979; Favreau and Segalowitz 1982; Carrell 1983, 1984, 1987; Carrell and Wallace 1983; Bernhardt 1983; Zuck and Zuck 1984; Steffensen 1988; Reeds, Winitz and Garcia 1977; Koda 1987; Haynes 1981, 1988; among others). These have provided sounder bases for the construction of several approaches and theories by continuing to address many of the outstanding unanswered questions about SLA.

It is, however, important to underline that the tendency in all SLA research is not to distinguish between SLA, L2 and FL learning, since any kind of non-native acquisition or learning is believed to be subject to the same constraints. Additional lack of differentiation may originate from the UNESCO definition (widely repeated in dictionary definitions) of L2: A language

acquired or spoken by a person in addition to his/her mother tongue. Nevertheless, differences between language acquisition (LA) and language learning (LL) need to be taken into consideration.

Krashen (1981) in his Acquisition-Learning Hypothesis argues that LA takes place in the child when s/he is acquiring L1 together with many other competencies, skills and much other knowledge about the world in a natural process. This experiential and subconscious absorption of language occurs in non-educational contexts or in contexts which approximate communication.

By contrast, language learning (FLL), that is, learning an L2 or FL, takes place in formal instructional contexts with interaction between teachers and learners. It normally starts at a later stage when language competence has already become established and many other physical and mental processes of maturation are complete or nearing completion. At this stage, the language learner has nearly completed his/her communicative competence development in L1, so already knows what some of its purposes and functions are (Krashen 1983).

Learning unlike acquisition, therefore, refers to explicit knowledge of rules (and concept chains, in this study), being aware of them, and being able to talk about them (Krashen 1983:26); that is, to relate one's possessed knowledge to new concepts learned. Krashen (ibid.:26) claims that this proposition is nearly entirely realized in formal teaching, the goal of which is the learning of conscious rules, and error correction is thought to help the learner arrive at the 'right' form of the rule. As I have already mentioned, in this study formal teaching/learning takes place in the academic environment of the Faculty of Economics – UNIFI, Italy.

Learning a L2 is, however, not only a matter of learning explicit rules and relearning a completely new set of skills from scratch, but also the adaptation or extension of one's existing skills and knowledge (of L1 domain-specific conceptual knowledge in EFL, precisely, in this research – §Ch.5,6,7). As Halliday (1985: 101) argues, for instance, grammar goes beyond formal rules of correctness because it is a means of representing patterns of experience, enabling one to build a mental picture of reality and to understand what happens around and inside oneself. In learning a L2, therefore, the learner should implement his/her understandings acquired in the socio-cultural context-reduced environment in meaning making practices which simultaneously help to apply and revise what has been learnt, as Street (1998) and The New London Group (2000) claim.

Hence, the process of acquiring a L1 and learning a FL does not differ, as there are some fundamental properties which all languages share. Once these have been learnt, through the L1, the learning of a L2 may be a relatively smaller task. What affects learning, though, are social factors, motivational, attitudinal and instrumental factors, as well as age and the perception learners have regarding the similarity and difference or ‘distance’ between languages, as Hakuta, Bialystok, and Wiley (2003) argue. However, such factors tend to be ignored or marginally considered.

The ‘distance’ between one’s native language and the target language (TL) can be viewed either as a linguistic phenomenon – the degree of actual linguistic differences between two languages – or/and a psycho, sociolinguistic phenomenon what learners think to be the degree of difference between their L1 and L2 (Kellerman 1977). On the basis of such perceptions and beliefs, as to whether the native language and TL are the same, either in terms of linguistic detail or in general terms, learning decisions are formed. These entail the creation of ‘projections’ about what can be transferred from L1 to L2, in order to assist one’s performance, as van Hell and T. Dijkstra (2002) and Joo (2003) claim.

Singleton (1987; 1999) suggests that evidence of how defined perceptions and notions about which language can assist learners most, even in cases of bilingualism or multilingualism, demonstrates that L1 items are not perceived as *all* neutral, so available for transfer. Nor are L1 items perceived as *all* specific, thus not available for transfer. Their transferability is to be viewed, instead, as varying not only according to the stages the learner is in (Ellis 1994; Sabourin 2001; Jiang and Kuehn 2001), but also according to the impact of pedagogy, the academic context and many other interrelated variables that operate synchronically and synergistically (§Ch.6 and 7) on the learner (Lea and Street 1998), whilst moving towards the target language (TL).

3.3 ESL vs. EFL

Another point of relevance to my study is the difference between English as a second language (ESL) and English as a foreign language (EFL). Usually, ESL is found to embrace EFL for various reasons: or because English is taught more widely as a L2 (Snow 1986), or because it undergoes wider research compared to English as a FL (ibid.). However, ESL presupposes that English is learnt by non-native learners in a country where the official medium is English and where instruction is often provided in the same language.

On the contrary, in the case of EFL, the language teaching often takes place in a country where the everyday medium is another language (Italian, in this study) and the domain is mainly the classroom. LL is, consequently, circumscribed in comparison to more naturalistic LL. This implies that LL is not characterised by a great range of settings, participants, topics and purposes, since English is learnt through formal instruction only during language courses, as in the Faculty of Economics – UNIFI (§Ch.2).

Hence, study activities, on the part of the learner, are often focussed on learning explicit rules of grammar followed by practice in producing the target structure, often unsuccessfully, as Krashen (1982) and Swain (1985) claim, or, as Ellis (1994; 2001) argues, to develop implicit knowledge through conscious-awareness raising. Consciousness-raising activities, unlike the objectivist tradition based on knowledge learnt, tested and applied independently of particular contexts (Biggs 1996), aim at understanding grammatical features. This is attained by noticing how the features work in texts, in specific contexts they are embedded in, or in listening and they, therefore, help learners to monitor what they say, read or write (Schmidt 1994; Tomlin and Villa 1993; Rosa and O'Neill 1999; Ellis 1998; 2000). The lack of distinctions between ESL and EFL leads to further ignoring the many socio-cultural variables which affect learning and reading in EFL, as this study attempts to investigate (§Ch.6 and 7).

3.4 Language learning approaches and transfer

As already mentioned, most SLA research has derived from a general theory of learning with very few studies based on empirical analyses of the teaching-learning processes and actual language produced by tertiary level L2 learners (Brantmeier 2001; Young 2003).

The audiolingual approach was theoretically underpinned by structural linguistics, which focused on the phonemic, morphological and syntactic systems underlying the grammar of a given language. As such, it was held that learning a language involved mastering the building blocks of that language and learning the rules by which these basic elements are combined from the level of sound to the level of sentence. The audiolingual approach was based on LL being, like other aspects of human activity, a form of behaviour, i.e., the building of habits for the oral production and the receptive understanding of the language when spoken. Fries (1945) and Lado (1957) aimed at developing teaching materials based upon a scientific description of the TL compared

with a parallel description of the learner's L1. This would lead the learner to produce the sound and structural systems of the language through automatic and unconscious habits (Fries 1945:9).

These approaches were shaped by Bloomfieldian linguistics which regarded linguistics as an empirical science to be studied with an inductive method. Its purpose was to discover the grammar of a language by making it emerge from the stream of physical sounds. By contrast, any interest in the combinatorial nature of language, mostly represented by syntactic creativity, was banned (Lenci and Sandu 2004).

Most linguists were, in fact, psychologists adopting the same aims and methodology of science. In their behaviourist approach, they rejected all data that were not directly observable or physically measurable. They saw no need to postulate the existence of the mind or of anything else that was not observable (Lyons 1977). In their view, language was elicited by a stimulus that triggered a response. According to Corder (1973), the response in turn produced some kind of reinforcement, which, if positive, encouraged the repetition of the response in the future or, if negative, its suppression. Language learning was, consequently, not concerned with problem solving but with the formation of habits well embedded in the speaker's L1 (Tarone 1988).

3.4.1 Transfer as L1 interference

The learner's native language and the language to be learnt was used by Lado (1957), in the Contrastive Analysis (CA) approach, to predict learners' errors in learning a L2. Errors were explained as deriving from interference of L1 in L2 and resulting from *proactive inhibition*, that is, how previous learning prevents or inhibits the learning of new habits. Consequently, the behaviourist learning theory predicted that transfer would be negative when there was proactive inhibition. CA, however, did not predict or explain the psychological and the many non-linguistic variables, such as, the type of learning, the level of the learner's readability linked to conceptual development in L1, its interference with EFL.

Most of the grammar models used in language comparisons followed the structuralist approach and were based on surface structure characteristics. Structuralism emphasised the differences between languages and prevented any system of classification appropriate for all languages. Each language was seen as a self-sufficient system wherein each element has a value uniquely determined by the structural relations of that system (Van Buren 1972). The focus was only

based, once again, on the correspondence between linguistic difference and degree of difficulty in learning but excluded any reference to the social context wherein LL took place.

The narrow perspectives of these approaches were critiqued by Chomsky in *Syntactic Structures* (1957) and in his review of Skinner's *Verbal Behaviour* (1957) by underscoring the derivation of language from a Universal Grammar (UG) which enables humans, on the basis of their innate system, to produce and understand an infinitely large number of utterances they have never previously encountered.

This set of innate biologically endowed faculties (Chomsky 1966, 1981; Pinker 1994), permits the L1 acquirer to arrive at a grammar on the basis of linguistic principles and experience by exposure to input. L1 acquisition, thus, includes the product of a language acquisition device (LAD), by which a learner can relate the surface structures of the language s/he is acquiring to a set of universal grammatical rules. For Chomsky (1980), the mental structure consists of a system of rules and principles that generate and relate mental representations of various types⁴ leading to grammar restructured over time. According to this theory, humans produce language through a deep structure that enables them to generate and transfer their own grammar to any other language (Lakshmanan 1994:22).

3.4.2 Transfer within the psycholinguistic approach

This psycholinguistic approach led to the hypothesis-testing concept related to the series of interlocking systems forming what Corder (1967) called the learner's built-in syllabus and later defined as 'the interlanguage continuum' by Selinker (1969). This system attempts to explain how learners progressed in acquiring an L2 as compared to when they acquired their L1. Corder proposes that at least some of the strategies used by the L2 learner are the same as those used in the acquisition of L1. This derives from one knowing not only what language is like, but also from knowing the rules of a particular manifestation of language – one's primary language (Corder 1973:135).

⁴ The term mental representation is used in two different ways in the field. Firstly, it refers to particular structural representations – phonological, morphological, syntax or semantic – whereby grammar generates representations. Secondly, the term is used as an equivalent to grammar in a more generic sense.

Corder (ibid.) further argued that errors⁵ serve as windows to the learner's progress in the L2, since learner language is unstable, dynamic in nature because linked to transitional competence⁶. Yet it is creative, that is, with rules unique to itself, not simply borrowed from the L1. The making of errors was regarded as a device learners use in order to learn whilst giving indications on their learning strategies. It was therefore a mistake to regard the L1 only as negative and interfering⁷. L1 was rather a source of language transfer, i.e., the incorporation of items and features from the L1 into the interlanguage, and of borrowing, i.e., a performance phenomenon occurring with the use of syntactic and lexical items from the L1 to cover the deficiencies in the interlanguage (IL).

Selinker (1969; 1972) further suggested that through L1 learning strategies learners build mental grammars of the L2 that are IL. The latter is distinct from both the learner's L1 and from the TL, since it is a separate linguistic system originating from the learner's attempted production of the target language (TL) norm.

The replication of these linguistic and psycholinguistic SLA theories from the 1980s onwards did not fully explore the underlying dimensions of either the L1 or L2 process, as many (e.g. Clarke and Silberstein 1977; Brown 1996; Chung 2000; Oded and Walters 2001) believed L2 issues to be a grammar or a prior knowledge issue which viewed learning through the L1. Other scholars (e.g. Coady 1979; Cummins 1980; Bialystock and Hakuta 1994; Street 1995; Prinsloo and Breier 1996; Barton 1994; Francis 2000; Gee 2000; Kress 2000; Heugh 2000; Hall and Hewing 2001; Pavlenko and Jarvis 2002; Block and Cameron 2002), by contrast, saw the acquisition of solid cognitive and literacy skills as an important basis for learning successfully an L2.

⁵ Corder (1973) distinguishes errors from mistakes and lapses. Mistakes are characteristic of speakers/hearers who notice their mistakes and readily correct them. Such mistakes can be classified as transpositions or substitutions or additions of a speech sounds or morpheme, word or complete phrase. Lapses are 'slips of the tongue', whereas errors arise from imperfect competence in the target language.

Chomsky (1965), on the other hand, had defined errors caused by fatigue and inattention as performance factors; instead errors resulting from lack of knowledge of the rules of the language, competence errors. The distinction between performance and competence is extremely important, but it is difficult to determine the nature of a deviation without careful analysis, therefore the tendency to refer to error as any deviation from a selected norm of language performance, no matter what the causes or characteristics of the deviation might be.

⁶ The notion of competence comes from Chomsky.

⁷ Interference has been used to refer to two distinct linguistic phenomena, one that is essentially psychological and another that is sociolinguistic. The psychological use of the term refers to the influence of old habits when new ones are being learnt (e.g. Behaviourism); the sociolinguistic use refers to linguistic borrowing and language switching when two language communities are in contact. Such a distinction had not been made clear by CA proponents who used sociolinguistic data gathered by linguists as Weinreich (1953) and Haugen (1953) as empirical support for the psychological phenomenon of negative transfer (Dulay, Burt and Krashen 1982).

3.4.3 The threshold hypothesis

These concepts led to a new perspective of transfer. Williams and Capizzi Snipper (1990: 45) observe that students who are literate in their L1 have the ability to make connections between the L1 and the L2. This hypothesis had been previously discussed by Toukomaa and Skutnabb-Kangas (1977) in the threshold hypothesis, according to which the basis for the possible attainment of the threshold level of L2 competence seems to be the level attainment in the primary language.

The hypothesis recalls Cummins⁸ (1979), who maintains that the level of L2 competence is partially a function of the type of competence students have developed in L1 at the time of exposure to L2. Cummins's (1981) refinement of the Threshold theory led to his Developmental Interdependence Hypothesis. According to this, the high cognitive and academic aspects of L1 and L2 are interdependent and the development of proficiency in L2 is partially a function of the level of proficiency attained in L1, when intensive exposure to L2 begins. This means that previous learning of literacy-related functions in L1 is relevant to predict future learning of corresponding functions in L2, and that transfer may be broadly defined as the ability to apply knowledge or procedures learnt in one context to others (Mestre 2002).

Cummins⁹ proposes that although L1 and L2 differ in surface features of phonology, syntax and lexicon, a common underlying proficiency determines an individual's performance on cognitive and academic tasks (e.g. reading) in both L1 and L2 (Cummins 1980: 118) as two languages operate through the same central processing system. The latter recalls Chomsky's argument that:

[...] every speaker of any natural language (by virtue of his possession of the specifically human capacity to acquire language) knows, in some sense, what counts as a humanly possible speech-sound and what counts as a humanly possible conceptual distinction; [...] he also knows some of the conditions that determine the well formed combination of sounds and meanings that are brought together in the words and sentences of particular languages. The knowledge is built in. [...] The missing links are

⁸ The first threshold is a level for the child to reach and avoid the negative consequences of bilingualism. The second threshold is the level required to experience the possible positive benefits of bilingualism. The problem with such an hypothesis is to define the level of language proficiency to be obtained in order to achieve the positive effects of bilingualism.

⁹ Cummins (1996) initially hypothesised that whose L1 skills are less developed may have a limiting effect on the development of L2 although the language of initial literacy instruction is not, in itself, a significant determinant of academic outcomes. It is one of the variables related to power relations and identity negotiations (Baker and Hornberger 2001). The mismatch hypothesis (Cummins 1979) – in this specific case the difference between the L1 spoken at home and the FL learnt at school – has, therefore, no credibility.

supplied by the more general theory of grammar. It is by virtue of his knowledge of universal grammar that the speaker of a natural language is held to be able to interpret the phonetic and semantic representations (Chomsky 1983).

3.5 BICS and CALP

Alongside the Developmental Interdependence Hypothesis, Skutnabb-Kangas and Toukomaa (1976) proposed a distinction between surface fluency and academically related aspects of language competence. That is, if learners are motivated and are adequately supported by the environment, they can usually acquire conversational fluency in L2 relatively easily. By contrast, they judged academic language proficiency harder to attain in an L2 because it requires solid cognitive grounding in the L1, and it relies on conscious learning which scaffolds learners (§Ch.1 on conscious learning).

Cummins (1984) makes the same distinction in terms of basic interpersonal communicative skills (BICS) and cognitive and academic language proficiency (CALP). BICS refers to cognitively undemanding manifestations of language proficiency in interpersonal situations and to communication occurring in context-embedded situations where contextual non-verbal support such as body language, gaze, intonation, etc., and simple commonsense, help understanding.

CALP consists in the learner abstracting the deep principles involved in knowledge being learned and reflecting upon features outside immediate interpersonal contexts, as in written texts that rely mainly on linguistic cues and on what Cope and Kalatzis (1993) term ‘uncommonsense’ characterised by technical and specialist knowledge which have their own peculiar ways of making meaning.

Regarding the relation between language proficiency and different domains, Chomsky (1965) points out that the phonological, syntactical and lexical skills which are required in daily interpersonal interaction are universal across native speakers. These differentiate in their linguistic skills in interpersonal communication, but the differences are not strongly related to cognitive or academic performance.

Cummins (1984) furthermore stresses that similarly to L1 BICS, L2 BICS is acquired by extensive exposure to an L2 environment and by motivation to interact. However as L1 BICS

tells us little about its relation to L1 CALP, so does L2 BICS provide limited information about L2 CALP.

Parallel to the BICS/CALP dichotomy, Burt and Dulay (1978) make a distinction between natural communication tasks and linguistic manipulation tasks, which they define as:

A natural communication task is one where the focus of the student is on communicating something to someone else – an idea, some information, or an opinion in a natural manner [...] On the other hand, a linguistic manipulation task is one where the focus of the student is on performing the conscious linguistic manipulation required by the task (Dulay and Burt 1978: 184).

Burt and Dulay consider the linguistic manipulation task as a metalinguistic awareness assessment which is often regarded as a specialised aspect of CALP. Krashen (1987), instead, points out that a conscious awareness of language and grammar differs from the tacit knowledge of competence which Chomsky (1965) claims all native speakers have of their language.

Cummins further developed his Common Underlying Proficiency (CUP) Model of Bilingual Proficiency along two dimensions –degree of contextual support (a continuum ranging from ‘context reduced’ to ‘context embedded’) and the extent to which a task can be considered cognitively demanding or not. This model focuses upon the relationship between language and thought according to which concepts are most readily developed in L1 and, once developed, are accessible through the L2. In other words, what we learn through one language transfers into the new language (Cummins and Swain 1986; Cummins 2000).

3.5.1. Moving beyond the BICS/CALP dichotomy

Although the BICS/CALP dichotomy was later transformed into CUP by Cummins, it has never ceased to influence subsequent research on second language acquisition and bilingual education. His Interdependence Hypothesis, however, reveals a number of limitations which have been sharply critiqued and need to be brought to the fore:

- (i) The Hypothesis generalises its results by taking into consideration only the Canadian bilingual immersion context which differs, for instance, from a

foreign language context, such as the Italian tertiary educational level investigated in this study.

- (ii) The Hypothesis not only does not provide any indication on how to define and test the distinction between BICS and CALP, but it also depicts a two stage competence development whilst ignoring more complex dimensions (Baker 1993).
- (iii) Street (1993) points out that transfer, in Cummins's perspective, is viewed as an automatic process apparently excluding both the different uses of literacy in each language and its social meanings. Regarding this, Romaine (1984) argues that it is very difficult to test the transferability of knowledge 'because the skills are bound up with culture-specific types of literacy and experience connected with those of schooling'.
- (iv) Such an automatic transfer process of skills from L1 to L2 seems to presuppose a high level of cognateness¹⁰ between languages. As studies suggest (de Groot and Poot 1997; Caramazza and Brone 1979; Cristoffanini and Gerard 1986), cognate status influences performance on a number of lexical tasks. For instance, cognate nouns are recognised by bilingual adults more rapidly than non-cognate nouns in lexical decision tasks; cognates are translated more rapidly than non-cognates; priming across languages is greater for cognates than non-cognates; cognate status may interact with the level of language proficiency of the subjects.

Nevertheless, can transfer be based mainly on cognateness? The point is that all languages share a common way in which experience is construed, but within these limits there is also considerable variation from one language to another in describing the reality we are embedded in (Halliday and Martin 1993). Hence, a concept can be transferred not only by cognates but also

¹⁰ Although there is no single definition of cognate, in general, languages that share a common parent or have a history of borrowing due to contact between each other have pairs of words known as cognates. Cognates are words with the same meaning and similar form in two languages. Examples may include the Italian/English pairs: banca/bank, economia/economy, monopolio/monopoly, etc.

when a language requires more words than another to convey its meaning¹¹. As Hymes (1971) argues, transfer is a more complex process than what the degree of linguistic similarity and distance can predict with regard to mutual intelligibility, let alone use.

A case in point is how cognateness might be insufficient to support conceptual knowledge transfer in domain-specific reading comprehension multiple choice questions (§Ch.4). An economics student, for instance, might wrongly choose an option from the multiple answers on the basis of cognateness of terms and without considering the sense of the lexical item in the context. His/her choice, therefore, might be wrong because s/he ignored that there might not be a match between how the concept is expressed in Italian and English. Other components such as, lexical items, their collocations and semantic prosodies, syntactic structures creating textual cohesion are all interrelated and essential to transfer.

I discuss these interrelations in chapters 5 and 6, in my attempt to show how bidirectional conceptual knowledge transfer between two cognate language, Italian and English, does not occur so easily by FL undergraduates who are expected to be literate in their L1.

This entails transfer not being simply a case of one language growing as a direct result of the other, as Romaine (2000) argues, because language is not simply a reflection of some external objective reality getting carved up in different ways in different languages. With language we construe both that which we experience is taking place ‘out there’, and that we experience as taking place within ourselves, and we construe the two in a way that both can be reconciled (Halliday and Martin 1993).

In other words, language transforms our experience into meaning. It helps us to make sense of the world by classifying things, by imposing a structure on the social world and by constructing a model of it. Hence, an examination of kinship terminology in different languages reveals how categorisation reflects the social construction of reality for a particular culture speaking a particular language (Romaine 2000).

I therefore take transfer of conceptual knowledge between cognate languages as a process that does not occur automatically – as depicted in Cummins’s hypotheses – because items

¹¹ This contrasts with Sapir-Whorf’s strong linguistic determinism hypothesis that language determines thought, that language and thought are identical which entails that a concept would be understandable only in the language it was first thought.

characterised as similar in one culture may not be so in another (as for instance in the case of economics terms, §Ch.5: text D-D1Q14). I further view the transfer process between two languages not just as the capability of the learner to establish relationships among his/her concepts in L1 but also as the capacity to abstract concepts by moving to a higher level of generality and implementing them in another language and in different domains, whilst confronting linguistic elements that can create issues of various nature whilst reading.

Cognitive and linguistic acquisition are, furthermore, influenced not only by cognitive skills, but also by individual variables such as motivation, attitude, aptitude, learning strategies, personality, previous knowledge, universal capabilities and the individual's total environment. These variables suggest that language proficiency, of which conceptual transfer is an essential element, can be viewed as a dynamic, complex, interacting network inseparable from context.

3.6 L1 development and reading skills

When reading in one's primary language, it is less likely that a mismatch will occur between the reader's mental model – schemata – and the writer's in the text. If such an event does take place, the initial mental model will be rejected and a different one will be tried until a match is achieved or until the discourse is classified as incomprehensible.

On the contrary, when reading in a FL, one of the primary tasks for students is how to extract information from printed texts. Smith (1971) points out that fluent reading skills require that the reader's knowledge is used to make inferences and anticipations (Tadros 1994) about information in the text. A student who has to read word by word and/or translate most of the words will lose much of the information before comprehending it. Anticipation is thus seen as a preliminary elimination of unlikely alternatives at the basis of comprehending written and oral language. Tannen (1993), in her review of theoretical approaches in cognitive psychology, anthropology and linguistics, assigns it a central role:

[...] people approach the world not as naïve, blank-slate receptacles who take in stimuli as they exit in some independent and objective way, but rather as experienced and sophisticated veterans of perception who have stored their prior experiences as 'an organised mass', and who see events and objects in the world in relation to each other and in relation to their prior experience (Tannen 1993:20).

Clearly then, prior experience belongs to, and forms, an individual's worldview, acquired through interaction in a social context which contributes to the development of a knowledge network. This enables the reader to relate the content of a text to a specific knowledge domain and to make anticipations. An anticipation is related to the guesses made on the reader's part, whereas prediction, or advanced labelling, is a prospective rhetorical device which commits the writer, at one point in the text, to the occurrence of another subsequent linguistic event. So, if there is a signal the reader will be able to predict what the writer will do; if there is no signal, the reader may only anticipate what the writer will do by using his/her common sense, or knowledge of the world ((Samson 2005: 108-9). However, anticipation might not be that easy when reading in a FL, for reasons I analyse and discuss later (§Ch.5 and 6).

Anticipation and three other main aspects have been hypothesised as important for the acquisition of fluent reading skills; these are:

- (i) the vocabulary and concept knowledge;
- (ii) the reader's metalinguistic insights regarding the nature of printed texts;
- (iii) the facility in processing written texts (Cummins 1979) although lacking the paralinguistic information that helps to interpret a speaker's intentions.

Cummins claims that although these three aspects can be distinguished conceptually, they are all determined by the student's linguistic experience in L1 that is loaded with conceptual knowledge acquired in his/her L1 prior to exposure to a cognitively demanding L2 skill (e.g. reading).

Flowing from these considerations, I think it is important to emphasise that the acquisition of conceptual knowledge in L1 is a socio-cultural linguistic process, as language is not produced in a vacuum. So, communication includes not only the structure of language, but also who is saying what, to whom, and in which circumstances. In this regard, Hymes (1971) and Romaine (2000: 25) refer to a speaker's underlying knowledge of the rules of grammar (understood in the widest sense to include phonology, grammar, lexicon, and semantics) and the rules for their use in socially appropriate circumstances as 'communicative competence'.

In particular, Hymes (1971) claims that we possess in our L1 a sense of what is linguistically appropriate:

Knowledge of sentences, not only as grammatical, but also as appropriate, is integral with attitudes, values, motivations concerning language, its features and uses, and it is integral with competence for, and attitude toward, the interrelation of language with other codes of conduct. The internalisation of attitudes towards a language and its uses is particularly important towards the language itself and the place language plays in mental abilities and strategies (Hymes 1971: 277-78).

By replacing the dichotomy between competence and performance¹² central to mainstream linguistics, the notion of communicative competence – related to spoken or written discourse – breaks firstly the traditional conception of language restricted to referential meaning. Secondly, it moves towards language involved in communicative conduct and social life where competency is achieved by social interaction. As Halliday (1978) argues, people in their everyday linguistic exchanges act out the social structure, affirming their own statuses and roles, and establishing and transmitting the shared systems of value and knowledge.

Social interaction has a prominent role in contributing, as Vygotsky discusses in his seminal work *Language and Thought*, to the development of cognitive skills and patterns of thinking which take shape in a matrix of social history, and form the products of socio-historical development.

3.7 Genre, discourse and text types

These ideas highlight the importance of FL learners becoming aware of the different domains or contexts that frame the discourse of economics and business (in this study) in their L1 as well as in a FL. As in L1, when a FL learner moves from one context to another, s/he must expect the discourses used to vary in terms of content, genre, text type and concepts because, as Halliday and Martin (1993) claim, language is metastable. Language is able to persist through time only by constantly changing in the course of interacting with its environment into new genres or functional varieties (ibid.).

¹² Unlike Chomsky's (1965) meaning of 'competence', i.e. the unconscious knowledge that speakers have of the grammatical features of the language(s) they speak, Hymes (1971) challenged the restriction of the term only to grammar and coined the term 'communicative competence', to refer to the verbal and non-verbal communicative system. The other two notions of Hymes' communicative competence are: systematically possible in the language – the descriptive grammar of the language, similar to Chomsky's notion of competence; and psycholinguistically feasible – the comprehension and production performance functions. In general, competence is referred to the knowledge speakers have of how to construct and use language.

Genre essentially refers to language in use in a conventionalised communicative setting in order to give expression to disciplinary, social institutions or writers' purposes and goals (Bhatia 2004). Genres have specific forms of meanings deriving from, and encoding, the functions, purposes and meanings in the social occasions. Genres, therefore, provide a precise index and catalogue of the relevant social occasions of a community at a given time, are connected to discourse and are recognised as legitimate groupings of texts within a certain community (Lee 2001). Hence, genres emphasise their communicative role, which depends on external criteria (Biber 1989), communicative purpose, linguistic content and form (Swales 1990; Trosborg 1997).

The meaning of texts, though, derives not only from the meanings of the discourse which gave rise to, and appear in, particular texts, but also from the forms, meanings and constraints of a particular genre. This is a crucial aspect I consider when analysing and interpreting the subjects' reading comprehension scores of economics and business texts in this study (§Ch.5 and 6). Both discourse and genre, therefore, carry specific and socially determined meanings.

Discourse carries meaning about the nature of the institution from which the discourse derives (the Faculty of Economics-UNIFI in this research); genre carries meaning about the conventional social occasions on which texts arise, following Kress (1990: 20). Thus, the rationale for the genre shapes the schematic structure of the discourse, influencing and constraining choice of content and style as Swales (1990: 58) claims.

Bhatia (2004), however, advocates that some of these constraints can overlap across academic disciplines, due to variations in communicative purposes which contribute to rendering especially professional genres less static. This implies that a genre may have a complex communicative behaviour, typical of real life, which requires a broader interpretation (by the subjects in this study) including the linguistic resources used by a community and its contextual features (Samson 2007).

This perspective further underlines, as Paltridge (2001) does, a flexible classification of genres based on the interactive co-occurrence of a number of aspects of discourse structure. Specifically, macrostructure, discourse elements, discourse relations, components of discourse elements and semantic relations connected to the context. However, not even these aspects of discourse organisation can exactly define a genre as this can include more than a text type.

Text types can be viewed as serving a communicative function and certain linguistic patterns as serving a function within a specific discourse (Werlich 1976). They can be categorised on the basis of the global structuring of a text, as regards internal links and development of paragraphs, according to Meyer's (1977) taxonomy; or on the basis of a text structured according to its linguistic elements, following Biber (1989, 2007).

In informational production (the news article in this study) nouns, prepositions and attributive adjectives are to be found. In abstract information (as in the economics textbooks in this research) passives and adverbial subordinators are most frequent. Rigid categorisations of text types are difficult, however, as linguistic surface structures can perform different functions without a one-to-one correspondence between text type and the functions they perform. This can be found in the news story article and the business news article considered in this research (§Ch.4-4.3.12).

Specifically, the economics textbook excerpt, the news story and the business article, administered to the subjects of this study (§Ch.4 and 5), belong to the academic writing genre and the news genre. The first is a genre that has for long been viewed as impersonal and objective. It is characterised by lexico-grammatical features, such as nominalization and the passive voice, reflecting the positivist assumption that academic research is purely empirical; therefore explanations and analyses have to speak for themselves (§Samson 2004). Eradication of the self has the function of emphasising the sharing of knowledge with the whole community, while stressing that a text can communicate directly to the reader without human mediation. (§Hyland 2001).

However, research in intersubjectivity and intertextuality in economics discourse for academic purposes has grown to such a point that economists are no longer viewed as reporting research and drawing inferences from a series of events without marking their attitudes or committing themselves to their texts. Indeed, several studies (Bondi 1999; Hyland 2000; Samson 2002; 2004a; Poppi 2004) have shown that economics claims in textbooks are never presented as exclusively factual content but are expressed in argumentative form and must be convincing to gain credibility in the disciplinary community.

Given this, in the economics textbooks excerpts administered to the subjects the economist begins with a thesis on a problem in the first paragraph. The problem is developed in an

argumentation, in the following paragraphs, through which the economist attempts to solve the problem whilst persuading the reader of his/her point of view on the initial thesis (§ Ch.4 and 5).

The two news articles administered to the subjects of this study represent different text types of the news genre. The first is a news story with a narrative structure characterised by a general-specific textual pattern. That is, there is an initial thesis in the first paragraphs and a series of events narrated through which the journalist persuades his/her readers of his/her point of view on his/her thesis. The second is a business news article consisting of an initial thesis followed by several argumentative paragraphs proposing two different perspectives on the topic. The twofold perspective has the function of reinforcing the journalist's position in the text and persuading his/her readership of his/her conclusion (§Ch.4 and 5).

In reading and comprehending these texts the subjects must consider not only textual features but also the socio-cultural conventions that exist around texts, or their discursal units (Halliday and Hasan 1976). The capability to do so will in fact be taken into account when measuring and interpreting the subjects' reading comprehension of different genres and text types (§Ch.5 and 6). If the subjects focus only on the textual features, they can be led to inaccurately interpreting text cues and wrongly identifying the genre itself.

Such an awareness implies that FL learners (as those in the Faculty of Economics-UNIFI) need to transfer from L1 to EFL, and vice versa, not only conceptual knowledge but also the socio-academic (instead of the more generic socio-cultural) features which typify the discourse of that domain-specific environment (§Ch.5: Text E-E4Q2). The meanings of words, phrases and sentences are always situated, that is, customized to one's actual context including one's purposes, values and intended course of action and interaction (Gee 2001).

This involves what Street (1994; 2003) and Lea and Street (1998), in their discussion of academic literacy practices at tertiary level, term as the ideological model of literacy. That is, the capacity of learners to adapt to new ways of understanding, interpreting and organizing knowledge based on socially epistemological principles. These vary according to the context which entails discourse and power variation (Street 1998: 35), since literacy is what society does with it and brings to it (Street 1985). The autonomous model of literacy, by contrast, sees literacy as primarily a set of cognitive skills and abilities to be learnt and used generically without any social and ideological position.

Flowing from this conception, building meaning and using one's domain-specific conceptual knowledge does not autonomously affect other social and cognitive practices, as if it were a universal technical neutral skill (Street 2003:77). It is, instead, always strictly related to specific academic literacies or, following Gee (2001), to the social language which is embedded in the Discourse¹³ of Economics, in this study.

3.8 What is a concept?

It follows that being able to read in EFL and understand different genres and/or text types requires referring to one's contextually related sociocultural conceptual knowledge in L1 during bidirectional transfer to EFL (§Ch.5, 6, 7). But what is a concept? Though widely used, the term 'concept' is an elusive term which has been described in several ways:

- (i) an image recalled by memory;
- (ii) an indefinite or unformed thought;
- (iii) an entity (as a thought, sensation, or image) actually or potentially present to consciousness;
- (iv) in the Hegelian interpretation, a synonym for understanding the essence of the matter, that is, the essence of phenomena which are only outlined by a given term; it is by no means a synonym for "the meaning of the term", which may be interpreted as the sum-total of "attributes" of the phenomena to which the term is applied (Ilyenkov 1977).

The working description of the term preferred here in reading and comprehending in a FL, is concept as an abstract or generic idea generalized from particular instances of what exists in the mind, as a representation of something comprehended and associated with a word¹⁴. More simply, a concept is a mental image in which naming and understanding are combined in a social context. As Vygotsky (1962) claims, language is so closely linked with concepts and concept-formation that we cannot for long separate a concept from its name.

¹³ Ways of combining and coordinating words, thoughts, values, technologies, people so as to enact and recognise specific socially situated identities and activities (Gee 2001).

¹⁴ Hegel in discussing the boundary between the "material" and the "ideal", between the "thing in itself" and its representation in social consciousness, defined any word (term or combination of terms) as primarily a "thing" that exists outside the consciousness of the individual, possesses perfectly real bodily properties and is sensuously perceived. According to a classification accepted also by Kant, words clearly come under the category of the "material", as stones or flowers. In contrast, what is called the "ideal" is their subjective image in the head of the individual, in the individual consciousness (Ilyenkov 1977).

3.8.1 Reading within wider contexts

But reading, as already mentioned, entails moving towards wider parameters of context, away from the immediate conceptual system in the text, from simply focussing on its interactional network, toward the social and cultural life in which a text is embedded. As Hymes (1972) points out in his communicative competence theory, in order to comprehend a text, readers need to activate their abilities and judgements relative to, and interdependent with, sociocultural features. Appropriateness is a judgement that employs one's tacit knowledge regarding how language is used appropriately thus entailing competence.

Reading therefore involves, as Street (2003) claims, a particular ideological viewpoint of both the reader and what is evoked by the context-reduced environment. Literacy or Discourses (in Gee's terms) are related to each other with ideological presuppositions attempting to align or marginalise other Discourses (Gee 1999; Besnier and Street 1994; Street 2003). Within this frame, I take reading to be a mix of linguistic competence and domain-specific conceptual knowledge achieved by social practice affecting performance.

Moreover, Halliday (1973) argues that the ideational function of language specifies the semantic and logical relations between subject and predicate of a sentence, whereas the interpersonal function relates the logical component to the requirements of a listener. These aspects of functional linguistic competence appear to be most directly related to the development of reading skills which Cummins sees reinforced by the L1. Having already developed an understanding of the concepts in L1 which will be encountered in L2, reading is consequently seen as a task of learning a new label for an existing concept, where the presence of the concept is an invitation to acquire a new word (Cummins 1979).

Because concepts are clearly related to language, and words are the means through which thought is formed and expressed, concepts cannot be developed into conscious form without language. Concepts are the outcome of intellectual operations in which mental functions such as memory, attention, and inference participate and in which language is the guide (Vygotsky 1962).

Putting things into words clarifies thinking (Christie 1989; Street 2003), provides a means for symbolising thought (Emig 1977; Hyland 2000, 2002) and is an integral part of the process of

concept formation. The development of conscious awareness, through the use of language, propels thinking towards conceptual understanding which holds a primary role in academic language proficiency (§Ch.5 and 6). Because concepts hold such a primary role in academic domains and in this study, I will attempt to clarify:

- (i) what are the different cognitive processes involved in generic and specific knowledge domains?
- (ii) what does such a differentiation entail?
- (iii) what is meant by concept formation?
- (iv) what is the relation between concepts and language?

3.9 Cognitive development

3.9.1 Generic vs. specific knowledge domains

Research on cognitive development has focussed mainly on generic knowledge domains whilst less attention has been bestowed on domain-specific knowledge such as science or economics. Overall, a domain is the collection of declarative and procedural knowledge useful for attaining some particular goals (in this case the knowledge domains of everyday life or of economics).

Knowledge in everyday life is acquired spontaneously through interaction with the world and other people. People may say they understand something just because they can relate it to commonsense and other familiar knowledge, or because they can make predictions. Understanding, then, may be demonstrated by merely noting a perceived connection with certain features whilst there is no need to check their validity, as general knowledge is factual and its aim is to cope with daily life. The notion of validity in everyday life is, consequently, not sharply defined. Likewise, the criteria for determining it are not explicitly specified because if validity needed to be assessed, past observations, tradition, commonsense, respected authorities or other reasonable knowledge would be referred to, as Reif and Larkin (1991) argue.

Domain-specific knowledge consists of the concepts used in this particular domain, the relations among them and the methods for dealing with them. It includes the specifications of how concepts are connected to observations they are intended to describe. They are strictly arranged in hierarchies of kinds, parts, and goals of the domain affecting the domain-specific knowledge as well as the nature of the knowledge required for its attainment. Knowledge of the goals and

the useful cognition in a domain can be labelled as meta-knowledge, that is, higher level knowledge necessary to avoid learning difficulties (ibid.).

Domain-specific knowledge is deliberately construed and refined to achieve both optimal explanatory and predictive power and the ability to transcend existing conceptions. Such a differentiation in an academic context requires commonsense knowledge to be abandoned in favour of long, complex, formal methods designed to implement long inference chains with great precision.

Formal methods, involving rule-based reasoning, are not naturally congenial to humans, so they require specialised training (§Ch.7) and the ability to interpret abstract symbols in any concrete instance. Evidently in such domains new concepts are deliberately invented to predict and explain far more extensive phenomena than those characterising daily life. Validity instead becomes a crucial goal to ensure the correctness and consistency of specific knowledge. It is also clear that language does not passively reflect some pre-existing conceptual structure; but it is actively engaged in bringing such structures into being. The language of domain-specific knowledge demonstrates that language does not simply describe or correspond to human experience; rather it construes it by transforming thought into words, or as Halliday and Martin (1993: 8) put it: ‘scientific theory is a linguistic construal of experience’ which, as mentioned, involves the contending of discourse and power (Street 2003: 35).

3.9.2 How are concepts formed?

In discussing the formation of concepts in a domain-specific knowledge such as maths, Skemp (1971: 19) claims that every time we recognise an object as one we have seen before, we classify it. The incoming sense is never exactly the same on two different occasions, since we see objects from different angles, distances and in varying lights. From these varying inputs we abstract certain invariant properties which persist in memory longer than the memory of any particular presentation of the object. Once this abstraction is formed any further experience C_n (n =new concept) evokes C ; from their combination we experience similarity to our previous experiences of seeing the object but also awareness of the differences between C_n and C_1 , C_2 , C_3 , etc.

However, we progress rapidly to further abstractions by abstracting other invariant properties by which we recognise a new object as a member of a specific class. An abstraction is some kind of lasting mental change which enables us to recognise new experiences as having the similarities

of an already formed class. More simply, it is something learnt that enables us to classify; it is the defining property of a class. To distinguish between abstracting as an activity and an abstraction as its end-product, we call the latter a concept. (Skemp 1971:22).

A concept requires for its formation a number of experiences which have something in common and their classification. Once the concept is formed, we may talk of examples of the concept. As seen, everyday concepts come from everyday experience, and the examples which lead to their formation occur randomly, spaced in time. The more frequently encountered objects are, the more rapidly they are conceptualised; but many other factors are at work. One of these is contrast. Objects that stand out from their surroundings are more likely to be remembered, and their similarities more likely to be abstracted across intervals of space and time. However, it is difference from all the other “objects” that makes the similarities more noticeable.

Another important kind of classification is by function. Once an object is classified we know how to behave in relation to it, although once we classify something in a particular way, we are less open to other classifications. For instance, Howe (1996), Reif & Larkin (1991) argue that those who have developed concepts spontaneously in everyday life outside a definite system will have learnt their function in that specific everyday domain. But difficulties will arise in understanding the same concepts in a domain-specific context where, as mentioned, the cognitive processes required will have to move from the specific example towards abstraction.

Naming also plays an essential part in the formation of new concepts, as verbal thinking – perceptual thought processes mediated through the use of language – embeds and constrains the whole complex system of concepts. Vygotsky maintains:

Concept formation is the result of a complex activity in which all the basic intellectual functions take part. The process cannot be reduced to association, attention, imagery, inference, or determining tendencies. They are all indispensable, but they are insufficient without the use of the sign, or word, as the means by which we direct our mental operations, control their course, and channel them toward the solution of the problem confronting us (Vygotsky 1962: 58).

Language, as already mentioned, has a prominent role in concept formation, since hearing the same name in connection with different experiences predisposes us to collect them in our minds, and increases our chance of abstracting their intrinsic similarities. Skemp (1971) divides concepts into two types: those deriving from our sensory and motor experiences of the outside

world (red, car, hot...) which are classified as primary concepts and those which are abstracted from other concepts, secondary concepts.

On the other hand, Ausubel (1969: 166), refers to the two dimensions of intellectual development as a gradual transition from subjective to objective thought, and from concrete to abstract cognitive operations. Word meaning denotes nothing more than a vague syncretic conglomeration of individual objects, gathered in the child's mind, and the bonds between the objects and words. These bonds are concrete and factual rather than abstract and logical, as they are discovered through direct experience (Vygotsky 1962). Meaning is, in fact, carried from one link to another and this chain thinking demonstrates the perceptually concrete, factual nature wherein all attributes are functionally equal. Thus, complex thinking does not rise above its elements as a concept does: it merges with the concrete objects that compose it (ibid.: 65).

Syncretism which refers to the child's tendency in perception, in thinking and in acting to merge the most diverse elements into one unarticulated image, is crucial, also at tertiary level. It leads to complex chain thinking for developing flexible L1 domain-specific conceptual knowledge and meaning for bidirectional L1↔EFL transfer (§Ch.5 and 6). Vygotsky (ibid.) divides the concrete-abstract dimension of intellectual development into three qualitatively distinct developmental stages: the preoperational stage, the stage of concrete operations, and the stage of abstract operations.

3.10 Stages of cognitive development

3.10.1 From the preoperational to the concrete stage

Because learning requires an individual to relate presented new ideas to existing concepts in his/her cognitive structure, in an elaborative, correlative or qualifying sense, the mediation with tools is essential to provide a medium to connect the external and the internal, the social and the individual (Vygotsky ibid.).

Mediation occurs through a linking tool or sign. A tool is defined as something that can be used in the service of something else. A sign is something that stands for something else (indexical, iconic, symbolic) and language – that includes various systems for counting, mnemonic techniques, algebraic symbol systems, works of art, writing, schemes, diagrams, all sorts of conventional signs, etc. – is the most important kind of sign used in the acquisition of higher psychological processes. As Halliday and Martin argue:

Language is the most general case of a semiotic system in the prototypical sense of the term [...] – a natural language spoken by adults and learnt as a mother tongue – involving a physical medium, a biological organism and a interactive social order (ibid.: 16).

These changes give human perception a new character wherein the role of language is striking because of the opposing tendencies implicit in the nature of visual perception and language. The independent elements in a visual field are simultaneously perceived; in this sense, visual perception is integral. Speech, on the other hand, requires sequential processing wherein each element is separately labelled and connected in a sentence structure, making speech essentially analytical (Vygotsky 1978). In this way, language and perception of real objects, of which all their specific features can be distinguished, are linked.

These observations suggest that all human perception consists of categorized rather than isolated perceptions. The developmental transition to qualitatively new forms of behaviour is not confined to changes in perception alone. Perception is part of a dynamic system of behaviour; hence, the relation between transformations of perceptual processes and transformations in other intellectual activities is of primary importance (ibid.: 33).

Once individuals are able to manipulate relations between ideas internally, that is, without overt manipulation of the objects represented in the ideas, the stage of concrete operations begins, i.e., when behaviour and learning finally come under predominantly verbal or symbolic control. In solving problems and in meaningful reception learning, individuals tend to work exclusively with ideational representations of ideas, and with relations between them. They are therefore capable of solving problems – either by internal trial-and-error or by testing hypotheses – and understanding new ideas presented to them which imply correlative relationships with existing concepts in their cognitive structure. At this stage, though, individuals are still dependant on concrete-empirical experience. When such experience is not available, they find abstract relational propositions un-relatable to their cognitive structure, and hence devoid of meaning.

Consequently, where complex relational propositions are involved, they are largely restricted to a sub-verbal, concrete or intuitive level of cognitive functioning. This falls short of the clarity, precision, explicitness and generality associated with the more advanced abstract stage of intellectual development (Ausubel 1969: 168).

3.10.2 From the concrete to the abstract stage

Ausubel (ibid.) claims that gradually individuals become less dependent upon the availability of concrete-empirical experience in meaningfully relating complex abstract propositions to cognitive structure. The capability of understanding and manipulating relationships between abstractions directly, i.e. without referring to concrete, empirical reality, emerges. The level of intuitive thought and understanding can be transcended and general laws relating general categories of variables that are divorced from the concrete-empirical data at hand can be formulated.

Concepts and generalisations tend to be more second-order constructs derived from relationships between previously established verbal abstractions already one step removed from the data itself. Ideas about ideas achieve a general status that is freed from any dependence on particular instances and concrete experience. Hence thinking becomes hypothetico-deductive in nature, i.e. it refers to all possible relationships between variables rather than to relationships delineated by concrete manifestations of particular instances (ibid.: 180).

The individual, consequently, acquires most of his/her new concepts and learns most new propositions directly, by apprehending verbally or symbolically stated relationships between previously learnt abstractions. Mature students, instead, who tend to function at a relatively concrete level, when confronted with a particularly new subject matter, possess a qualitatively higher level of abstract understanding enabling them to organise and integrate more efficiently new materials.

Ausubel (ibid.) specifies that, in the transition from concrete to abstract cognitive functioning, the developing individual first gradually acquires a working vocabulary of transactional or mediating terms. This allows a more efficient juxtaposition and combination of different relatable abstractions into potentially meaningful propositions. Secondly, s/he can relate these latter propositions to cognitive structure and make them more meaningful.

A body of abstract ideas is necessary before an individual can efficiently manipulate relationships between them to subsequently develop meaningful general propositions. The possession of a working body of inclusive concepts allows:

- (i) the formulation of more general statements of relationship which are less tied to specific instances;
- (ii) greater integration of related ideas and different aspects of the same problem;
- (iii) the elaboration of more precise distinctions and finer differentiations;
- (iv) less dependence on complete concrete-empirical data in reaching warranted inferences.

Ausubel (ibid.) furthermore suggests that it is reasonable to suppose that after many years of practice in understanding and acquiring the necessary transactional and higher order concepts, one can perform the same operations just as effectively without relying on cues. The same sequence of events can be found for example, in speaking a FL without internal translation from one's L1.

3.11 Instruction explains development

Similar to the distinction made between concrete and abstract cognitive functions, the relation between instruction, development and how scientific concepts taught at school are acquired, is crucial to this research. Instruction, conceived as interaction and co-operation between the learner and adults or more advanced peers, is necessary for the development of higher cognitive functions within a social and cultural framework: For

[...] the development of the psychological foundations for instruction in basic subjects does not precede instruction but unfolds in a continuous interaction with the contributions of instruction. [...] Instruction usually precedes development. The child acquires certain habits and skills in a given area before he learns to apply them consciously and deliberately (Vygotsky 1962:101).

In other words, intellectual development is not compartmentalised according to topics of instruction but it comes through the transformation of conceptual knowledge, social practices such as reading, for instance, and social interaction. Instruction, therefore, is true collaboration between teacher and learner in which the teacher guides, directs and encourages the learner's activity, whilst influencing the development of higher functions far beyond the confines of that particular subject. These main psychic functions, involved in studying various subjects, are interdependent – their common bases are consciousness and deliberate mastery. It follows that instruction, even at tertiary level, facilitates literacy and the psychological functions stimulated by the various subjects develop in one complex process.

3.11.1 The manifold functions of instruction: Vygotsky vs. Piaget

Vygotsky (1962), in criticising Piaget's view that learning cannot take place unless the appropriate cognitive structures enable experience to be represented and acted upon, suggests that learning begins much before attending school. This introduces, though, something new in the learner's development: a discrepancy between one's actual mental age and the capacity to solve problems autonomously or with assistance. This discrepancy is defined as the 'zone of proximal development' (ZPD) conceptualised as:

The distance between the actual development level as determined by independent problem-solving and the level of potential development as determined through problem-solving under adult guidance or in collaboration with more capable peers (Vygotsky 1978: 86).

Guided and collaborative instruction can facilitate a higher level thinking within the ZPD by marching ahead of development and leading the learner beyond what s/he would accomplish without help thanks to scaffolding. Wood, Bruner and Ross (1976) attributed to the building metaphor a crucial role in creating opportunities for learners to use and take control of ideas presented in advance of development:

If the learner is enabled to advance by being under the tutelage of an adult or a more competent peer, then the tutor or the aiding peer serves the learner as a vicarious form of consciousness until such a time as the learner is able to master his own action through his own consciousness and control. When the learner achieves that conscious control over a new function or conceptual system, it is then that he is able to use it as a tool. Up to that point, the tutor in effect performs the critical function of 'scaffolding' the learning task to make it possible for the learner [...] to internalise external knowledge and convert it into a tool for conscious control (Bruner 1985: 24-25).

If learning is mediated, learners could both accomplish a task at a higher level and could internalise their thinking, strategies, or mechanisms used, and approach other similar tasks. Gradually then the extent of the scaffolding would be diminished till being finally removed.

Wood and Wood (1996) contend that it is essential for the scaffolder to access the learner's level of comprehension and then work slightly beyond that level, rather than simply ensuring the task is completed. Yelland (1999) instead shows that since scaffolding is a concept that needs to be modified to suit the circumstances of implementation (i.e. the scope of the task and the learner's

own zone of development), also in order to accommodate the child's perspective (Yelland and Masters 2005), its nature is actually dynamic.

Instruction, therefore, also at tertiary level, has manifold functions:

- (i) it leads to mastering higher psychological functions that apply to both scientific concepts, to which tertiary education introduces the student, and spontaneous concepts acquired in the "world" (§Ch.6 and 7);
- (ii) unlike the Piagetian theory where they seem to cover a peripheral role as providers and managers of a suitable environment in which learning subsequently occurs – teachers have a central role in leading tertiary students to new levels of conceptual understanding – enculturation – by interacting, guiding, collaborating and modelling the learner's participation (§Ch.6 and 7).

3.11.2 Everyday concepts vs. scientific concepts

As mentioned, Vygotsky investigated the relationship between concepts formed from a child's experience and independent thinking; that is, thinking was defined, on the one hand, as everyday concepts based on particular instances not part of a coherent system. On the other hand, thinking was defined as concepts learnt in a context-reduced environment and part of a system of hierarchical knowledge of relationships which were classified as scientific concepts. This concept difference parallels the general/specific knowledge dichotomy already discussed.

Piaget's distinction between spontaneous and the non-spontaneous ideas, according to Vygotsky, fails to see the interaction between these two kinds of concepts and the bonds that unite them into a total system of concepts. These errors can be seen as leading to another: the lack of relation between context-reduced learning (an important factor of socialisation) and inner development processes (Vygotsky 1962:84). Contrary to Piaget, for Vygotsky non-spontaneous concepts are not acquired by rote but evolve with the aid of mental activity:

[...]The development of non-spontaneous and spontaneous concepts are related and constantly influence each other. They are part of a single process. The development of concept formation is affected by varying external and internal conditions, but is essentially a unitary process. [...] Instruction is one of the main sources of concepts and is also a powerful force for directing their evolution (ibid.: 85).

In other words, conceptual change can be considered an ongoing process in which, by collaborating with a teacher or peers, students integrate everyday concepts into a system of related concepts. This transforms the raw material of experience into a coherent system of concepts. Consequently, when a student has learnt how specific concepts are organised into a hierarchical system of interrelationships, this knowledge helps him/her to see how other related concepts fit into the system or hierarchy (§Ch.5 and 6):

In scientific concepts that the child acquires at school, the relationship to an object is mediated from the start by some other concept. Thus the notion of scientific concept implies a relation to other concepts, i.e., a place within a system of other concepts (Vygotsky 1962:93).

This rudimentary systematisation first enters the student's mind through his contact with scientific concepts. These are then transferred to everyday concepts, changing their psychological structure. Such a process occurs when the student reasons on what s/he has learnt in school and what was previously nonconscious¹⁵. In other words, the student uses metacognitive processes to transform and generalise knowledge.

In this research, the development of these two types of concepts can be used as an analogy to learning a FL as opposed to learning a L1. A learner acquires scientific concepts through the mediation of already acquired everyday concepts. Similarly, s/he learns a FL through the mediation of his/her L1, or any language s/he is immersed in (Howe 1996). Although the entire conceptual knowledge is essential to a FL learner, I argue that an expanded conceptualisation of proficiency is needed due to the complexity of language learning, especially in an academic environment which requires the knowledge of genres¹⁶ (§Ch.5, 6 and 7).

3.12 The interdependence of Language and Thought: a dynamic relation

Given that language is essential in mediating and developing thought since words are the means through which thought is formed and reified¹⁷ (Vygotsky *ibid.*), word meanings are to be

¹⁵Vygotsky specifies consciousness is used as “becoming conscious”, to denote awareness of the activity of the mind – the consciousness of being conscious - and non-conscious as not yet conscious.

¹⁶ It is not my intention to make a distinction in importance between everyday/scientific knowledge but just to underline the different exigencies of different social contexts.

¹⁷ Many schools of psychology considered the connection between word and its meaning as an association, where the word was seen as the external attire of thought, without any influence on its inner life. Once the meaning of a word had been established this was forever.

considered dynamic. They evolve and change, as thought functions in various ways. But if meanings change in their inner nature, then the relation between thought and word also changes. More specifically,

the relation of thought and word is not a thing but a process, which moves back and forth from thought to word and vice versa. In this process the relation undergoes changes which may be regarded as development in the functional sense. Thought comes into existence through words, and every thought tends to establish relationships between things. Every thought moves, grows, develops, fulfils a function, solves a problem (ibid.: 125).

However, the decisive role of language is not only in the formation of mental processes but also in their reorganisation. The flow between thought and language occurs as an inner movement through a meaningful semantic aspect of speech and the external, phonetic aspect. Although they form a unity, they have their own laws of movement. Inner speech works with semantics, not phonetics, which contributes to a preponderance of sense of a word over its meaning.

3.12.1 Sense and meaning in concept formation

The sense of a word is then the sum of all the psychological events aroused in our consciousness by that word. It is:

a dynamic, fluid, complex whole, which has several zones of unequal stability. Meaning is only one of the zones of sense, the most stable and precise zone. A word acquires its sense from the context in which it appears and in different contexts it changes its sense whereas meaning remains stable during the changes of sense. The dictionary meaning of a word is no more than a stone in the edifice of sense, no more than a potentiality that finds diversified realisation in speech (ibid.:145-46).

The enrichment of words by the sense they gain from their context is the fundamental law of the dynamics of word meanings. A word in a context, on the one hand, means more because it acquires new content, on the other, less because its meaning is narrowed by the context¹⁸. It follows that the sense of a word is a complex, mobile, protean phenomenon for it changes in different minds and situations and is almost unlimited. Just as the sense of a word is connected to

¹⁸ Similarly, Wittgenstein argues that the meaning of a term is determined by the use of the term in a language, which is dynamic thus, every linguistic universe, culture, has its own rules regards structure, meaning and choices (Wittgenstein 1949 quoted in Pera & Ratzinger 2005). Whorfian linguistic relativity states that distinctions encoded in one language are unique to that language alone, but that there is no limit to the structural diversity of languages.

the whole word, and not to its single sound, the sense of a sentence is connected with the whole sentence and not to its individual words (ibid.: 147).

Concepts are therefore formed by an intellectual operation in which mental functions such as memory, attention, and inference participate and in which language is the guide. It is thus crucial for this study to underline that students, through discussion, put things into words to clarify their thinking (Christie 1989; Street 2003) and develop new concepts by symbolising thought through writing (Emig 1977; Hyland 2000, 2002). This is an integral part of the process of concept formation.

The development of conscious awareness, through the use of language, propels thinking towards conceptual understanding, which is contextually bound, yet linked to a wider system (§Ch.6 and 7). As Schüts (2002: 3) points out, for Vygotsky all fundamental cognitive activities take shape in a matrix of social history and form the products of socio-historical development (Luria 1976).

Cognitive skills and patterns of thinking are not primarily determined by innate factors, but are the products of the activities practised in the social institutions of the culture in which the individual grows up (§Ch.6 and 7). In this process of cognitive development, language is a crucial tool for determining how students learn to think because advanced models of thought are transmitted by words.

3.13 Concluding remarks

It is clear that a correlation between cognitive knowledge in an individual's primary language and language proficiency in a L2 exists and that it is contingent with the degree of maturity in the L1. Furthermore, borrowing from Vygotsky (1962; 1978), I believe learners can transfer to their FL the system of meanings they already possesses in their own L1 because, firstly, no concept lies without bonds. Concepts by their very nature presuppose a system.

Secondly, because the degree of generalisation is the basic psychological variable according to which concepts can be meaningfully ordered, and if every concept is a generalisation, then a relationship between concepts is a relationship of generality which occurs in every language. Hence, to transfer an object of thought from structure A to B and vice versa, one must transcend the given structural bonds which requires shifting to a plane of greater generality, to a concept

subsuming and governing both A and B.

Moreover, the concepts we possess and we transfer can be described as mental images in which naming and understanding are combined in a social context. Importantly enough, inherent to a concept is the linguistic element which interprets our social contexts, since language is well embedded in our social interactions. As Wersch (1991) argues, social mediation is semiotic in nature with psychological tools providing the means through which an individual internalises the higher mental processes which are central to social interaction.

From this perspective, I consider Vygotsky's developmental theory a socio-academic one in which learning is culturally shaped by the social environment wherein it takes place. The environment of learning provides the mediational tools learners need to internalise the ways of thinking central to participation in the cultural world around them whilst the tools are fundamentally a part of the processes themselves.

A key proposition in learning is held by the ZPD, as the range of potentiality each individual has for learning. This suggests that the mind is not fixed in its capacities but it is elastic in terms of the different directions cognitive growth may take, depending on the sociocultural environment in which it develops. It is also unbounded, in terms of its potential for growth and the physical space it occupies. The social ideological and not only the personal character become pivotal when studying reading in a FL at a tertiary level (§Ch.6 and7).

From this perspective, reading economics and business texts in English, on the part of Italian undergraduates, requires many simultaneous processes to be activated. It entails bidirectional Italian↔English transfer of conceptual economics and business knowledge as well as confronting with specialised lexis, grammatical constructions, discourse patterns which characterise different genres and text types of domain-specific contexts (§Ch.5).

This means that, on the one hand, the reader has to move in L2 from commonsense knowledge to specific knowledge which is linked to an evolved semiotic system that typifies many genres and/or text types. In doing so reference to his/her commonsense knowledge is still essential. On the other, the reader needs to activate his/her ability and judgements relative to, and interdependent with, socio-academic features which are related to his/her communicative competence.

I therefore believe it is relevant to analyse reading in a FL by comprehending a wider spectrum of factors that can influence the process. For a high number of FL CALP readers a major issue is not only the gap between their conceptual economics knowledge in Italian and their reading domain-specific texts in English. It is also a matter of lack of conceptual organisation and flexible knowledge in L1 and EFL. To read proficiently, individuals require a range of logical relationships and internal representations of knowledge to associate with potential meaning. If they lack or do not apply such relationships and representations, the text will be largely incomprehensible to them (§Ch.5, 6).

So, considering reading as a constructive process requires that once a new word or structure has been incorporated into one's thinking it will gradually spread to the older concepts as these are drawn into the intellectual operations of the higher kind (Vygotsky, 1978). This, according to Vygotsky's developmental theory, shows the syncretic interrelation between thought and language that form a unit of verbal thought wherein language is the essential condition of knowing, the process by which experience becomes knowledge.

Reading can then be interpreted in a semiotic sense as part of an information system because language consists of exchanges of meaning within texts or discourse where a shared system of values is established and exchanged (Halliday, 1978). Reading, borrowing from Wells (1994), involves learning to do as well as to mean. Its goal is "...not just the development of the learner's meaning potential, conceived as the construction of discipline based knowledge, but the development of the resources of action, speech, and thinking that enable the learner to participate effectively and creatively in further practical, social and intellectual activity".

It is, therefore, important for a reader to construct his/her own understanding by using what s/he already knows to make sense of new information, as his/her transformed understanding is a personal reconstruction. This entails building a metacognitive model within the reader's mind which enables him/her to choose the most efficient strategies for problem solving.

The relation between conceptual knowledge in L1 and L2 reading proficiency is clearly complex and its analysis cannot be limited to a prevalent linguistic or conceptual knowledge issue. Conversely, I believe the analysis of reading in EFL needs to consider the flexibility of conceptual knowledge mediated by language within the academic environment. Here also personal variables intervene when students, in the Faculty of Economics - UNIFI in Italy, must access various genres and text types (§Ch.4, 5, 6 and 7).

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY

4.1 Arguments for my approach

In Chapter 3, I pointed out how transfer was initially seen by Contrastive Analysts as negative interference by L1 on EFL being learnt. Within the psycholinguistic approach, instead, transfer was represented as the cognitive strategies employed by learners to make sense of input and output while learning an FL. After Chomsky's radical departure from the prevailing structuralist/behaviourist paradigm, the role of L1 was recognised as a complex one requiring a multi-factorial approach involving not only specific factors of L1 and FL, but also universal ones related to the general organisation of natural languages.

Such considerations led to further studies, by Cummins for instance, suggesting that fully developed L1 performance would confer cognitive and social advantages to one's primary language and the acquisition of proficiency in a FL. As to the latter, following Cummins's theory of interdependence and CUP, an underlying cognitive and academic proficiency across languages (economics concepts, specifically in this study) aids a successful transfer of literacy-related skills from L1 to FL (Baker and Hornberger 2001).

My point, though, is that the process of conceptual transfer is not an automatic one, since other variables, for example, domain-specific knowledge, context, attitude and motivation (Romaine 2000; Halliday and Martin 1993; Street 1993; Gee 2001), may intervene to affect the process.

Regarding the need to consider other factors affecting conceptual transfer between L1 and EFL, in Chapter 3, therefore, I mostly focussed on Vygotsky's socio-cultural developmental theory examining his seminal description of:

- (i) sequenced stages in word-meaning development;
- (ii) concept-formation;
- (iii) function of inner speech;
- (iv) interaction between mental development and context-reduced instruction;
- (v) comparative development of concepts in different contexts as, for instance, scientific concepts learnt in a context-reduced environment vs. 'natural' concepts acquired informally.

Moreover, because Vygotsky argues that concept formation takes place through the use of language, which has social functions, I do not consider conceptual transfer to be merely a linguistic process. I take it also to be, simultaneously, a conceptual, culturally shaped one.

From this perspective, Vygotsky's theory is relevant to my study, since I see the reader as constructing his/her own understanding by using and expanding what s/he already knows while s/he is embedded in a specific context-reduced environment and interacting with it through social relations. I believe understanding becomes a transformed personal reconstruction; that is, a mental process which, in an academic environment, is more than just a generic social-cultural interpretation. I rather consider understanding as a socio-academic interpretation and construal and /or derivation of meaning in the economics/business texts to which the reader brings his/her unique capacities, goals and personal history.

Thus, this study investigates the features of the interdependence between conceptual knowledge in Italian and English in domain-specific texts (economics and business), in a context-reduced environment, such as that of the Faculty of Economics in Florence, Italy.

4.2 Research design

The approach I adopt, in my attempt to account for the bidirectional L1↔EFL conceptual transfer process, is a mixed qualitative and quantitative methodology. This approach is applied, at several stages throughout the study in order to examine:

- (i) the bidirectional relations between Italian↔English conceptual knowledge whilst undergraduate subjects read Italian and English genre based domain-specific texts;
- (ii) the cognitive and meta-cognitive reading strategies used by the undergraduate subjects to understand texts of different genres and text types within the field of economics as an academic discipline.

The purpose for choosing such a methodology is manifold. Through triangulation, that is, the process of checking the findings from one source of data with those from another (Vulliamy, Lewin and Steevens 1990: 106), I obtain additional strata of information which can increase the understanding of my research by providing perspectives from all the subjects involved in the study.

Specifically, following a chronological order, I firstly administer each pilot study reading comprehension test to the subjects of this research. Secondly, this same procedure is followed by administering the main study reading comprehension tests to the same subjects. I then triangulate the data by comparing quantitatively the scores of each test and study and successively interpret them qualitatively (§Ch.4: Table 1; 4.3.11 for entire details).

The validity of these findings is enhanced by checking any discrepancies at different levels of the analyses and by substantiating my qualitative interpretation with statistical findings, in order to confirm or discover any contradiction. A similar approach is applied to the scores of Questionnaire 1 and Questionnaire 2. All these data are further triangulated with the content of the interviews of two academics of the UNIFI Faculty of Economics (§Ch.4 Table 1; Ch.5).

Indeed, as Chilisa and Preece (2005) suggest, the adoption of a mixed methodology entails working back and forth between deductive (for qualitative studies) and inductive (for quantitative studies) analyses for each set of findings. The deductive method draws conclusions from general premises. So, after testing all the data collected, I draw my conclusions against my theoretical framework.

Conversely, I adopt the inductive method to draw general conclusions from particular data obtained from the statistically processed results of the reading comprehension tests and questionnaires administered (§Ch.4 Table 1) to the subjects of this study. Not only do both methodologies complement each other, but they also produce a more holistic study.

My assumption is that different levels of reading proficiency by Italian L1 readers of economics texts in Italian correlate, at least in part (i.e. conceptual transfer is but one factor), with different degrees of bidirectional Italian↔English conceptual knowledge transfer when reading genre-specific texts in EFL.

4.3 Discourse analysis approach

In this regard, I follow Gee's (2001) Discourse Analysis approach which focuses on "the thread of language and the related semiotic systems used in the situation network" (Gee 2001: 85) as well as Halliday and Hasan's (1976) approach to meaning in different genres. Within this framework, any written text comprises a set of clues or cues that are part of "grammar one" –

the more traditional set of units like nouns, verbs, etc – which allows the reader to move back and forth between language and context.

Therefore, in order to analyse how the subjects build meaning whilst reading domain-specific texts, I focus on the following points of Gee’s approach:

- (i) **The interpersonal function** of verb and the participant that refers to how directly the latter is involved as a subject, object, prepositional complement in an action, event, process, or state named by the verb which can be finite or non-finite. Specifically, finite verbs carry a marker of tense (e.g. present, past), or are accompanied by a modal verb indicating things related to possibility, probability, obligation, and so on. Tense marking or modality are part of the interpersonal function of language because the reader can negotiate through the meaning of the text, whereas the finiteness marking orients a reader to the degree and type of validity a reader takes his/her claim to have. Non-finite verbs, on the contrary, lack tense or modality.
- (ii) **Cohesion** that refers to how sentences are connected across whole texts and how they signal the way the text coheres to the subject through the use of function words. These belong to closed categories comprising determiners, – e.g. a/n, the (called also articles) this that, these, those; pronouns – e.g. s/he/her/him, it, her/himself; prepositions – e.g. in, on, by, to, of; quantifiers – e.g. some, many, all, none. Function words show how the content words in a phrase, clause or sentence relate to one another and/or how pieces of information fit into the whole on-going communication (ibid.: 100-1).

Cohesion, thus, is not only a structural relation; it accounts for relations within discourse, for the range of possibilities of linking something with what has gone before. Cohesion concerns the way a text is constructed as a semantic edifice and the semantic configurations are typically associated with a particular class of contexts (Gee 2001:26). That is, a text includes, as Gee (ibid.) claims, also “grammar two” – the co-location of patterns that mark the language of a text as a distinctive social language of a genre (§Ch.4-4.3.12), in this case of Economics and Business (§Ch.5).

Since function words carry less information than content words, Gee (ibid.: 102) describes them as informationally less salient because they convey information that

is given, already known or predictable. The implementation of specific words and their repetition in a text, however creates lexical cohesion.

- (iii) **Lexical cohesion**, that is, the choice of words which is related to a domain-specific context, typifies a genre, and can change their meaning when passing from a generic domain to a domain-specific one. Lexical words or content words belong to the major parts of speech: nouns, verbs, adjectives. These are classified as open categories because they each have a large number of members as languages add new members to these categories through borrowing from other languages or from the invention of new words (ibid.: 100).

Content words are informationally salient (ibid.: 102) because without knowing their precise meaning it is difficult to understand the meaning of a sentence (and to recall its related domain-specific concept, in this study). The decodification of the structural part of a text is however insufficient to achieve the general meaning of a text which is provided by textual coherence.

- (iv) **Coherence**, that is, the language used in a text has to have a sense which derives from all the micro text parts, and from the socio-cultural-academic knowledge model each subject brings to the text. The construed/derived meaning of a text is not simply attained by decoding grammar but requires the subject's capability to infer from the essential textual clues s/he re-elaborates and reconstructs at a higher level. This is based on his/her conceptual socio-cultural-academic knowledge, perspective, and embeddedness in the context-reduced environment, according to the reflexivity process (ibid.).

In analysing how the subjects build textual meaning, I also refer to Halliday and Hasan (1976). My focus is on the role of semantic units in building meaning in texts through texture. Texture is the basis for cohesion and semantic interdependence within a text. Without texture a text would be a group of isolated sentences without relationships, thus without cohesion.

The concept of cohesion relates to the semantic ties or relations of meanings that exist within a text and that define it as a text (ibid.: 4). Within text, if an item is referred to it is considered a tie, an intertextual link, which acts as the "presupposing" and the "presupposed". These links create interdependency in text and are mainly provided by endophoric referencing which relates to

information that can be retrieved from within the text through anaphoric, cataphoric and esphoric references.

Anaphoric reference points backwards in text; cataphoric reference points forward to information that will be presented later in text; esphoric points to any reference within the same nominal group or phrase which follows the presupposed item (ibid.: 51). Functionally speaking, personal reference indicates the speech situation using pronouns and determiners. Demonstrative reference indicates location through proximity references, whereas comparative reference indicates identity and similarity by using adjectives and adverbs (ibid.: 37-39). Furthermore, homophoric referencing indicates shared information through the context of culture; exophoric reference indicates information from the immediate context of situation (ibid.: 52).

Whereas referencing links semantic meanings within text, substitution and ellipsis operate as linguistic links at the lexico-grammatical level. Halliday and Hasan (ibid.: 125-26) argue that substitution and ellipsis are used to avoid repetition of a lexical item. This is achieved by drawing on one of the grammatical resources of the language to replace the item at a nominal, verbal and clausal level.

Among the cohesion-forming devices within text, Halliday and Hasan (ibid.: 279) indicate additive, adversative, causal and temporal conjunctions as semantic ties within text. Lexical cohesion, by contrast, refers to the reiteration and collocation of lexical items in text. Reiteration pertains to the repetition of a lexical item, either directly, through the use of a synonym, or a related word to express a concept. Collocation refers to the lexical items which are likely to be found together and tend to occur in the same lexical environment (ibid.: 286). The closer lexical items are to each other between sentences, the stronger their cohesive effect.

Flowing from this, such relationships are crucial to building meaning. Nevertheless, a text can have cohesion but not be coherent, thus be meaningless. In other words, following Gee (2001) “grammar one” is insufficient to construe meaning. It is essential for a text to include “grammar two” (ibid.) that is, have a logical sequence achieved by the linkage of semantic units through the text. For instance, it is necessary for the Grounds wherein the writer develops his/her thesis to be connected to the Rheme and Conclusion. These linkages throughout the text create meaning (Halliday and Hasan: 10-11).

The language used in a text has to have a sense deriving not only from all the micro text parts, but also from the socio-cultural-academic knowledge model each subject brings to the text. The construed/derived meaning of a text is not simply attained by decoding grammar. It requires the subject's capability to infer from the essential textual clues s/he re-elaborates and reconstructs at a higher level.

My view, however, is that a subject's capability to link the constituent parts of a text is influenced by his/her highly personal implementation of cognitive and meta-cognitive strategies, by different attitudes towards both the purpose of learning English and reading in that language, and by the academic environment in which the tasks take place. As a consequence, I will analyse whether the Italian subjects derive meaning by connecting one part of a text to another and if they do so on the basis of textual communicative features characterising genres and text types included in their curriculum. For instance, if subjects understand that the theme of a paragraph is linked to the rest of the thesis developed in the rheme, or if they recognise that various parts of the text are tied together by lexical repetition).

Furthermore, by referring to the Vygotskian socio-academic developmental framework, it is essential for me not to measure and analyse the Italian subjects' (as L1 Italian speakers) reading proficiency of economics and business texts per se, but to contextualise the tasks by taking into consideration the context, the subjects, their attitude towards the context and their activity of reading in EFL through the different types of data collected.

Arising from the above considerations, my primary research questions are:

- 1. Is there a transfer between the subjects' domain-specific conceptual knowledge of the content of Italian texts and their comprehension of translation equivalent or similar concepts in English texts?**
- 2. Is there a relation between the capacity of the Italian L1 subjects to use the inherent structural components when reading and comprehending an Italian text and their reading and deriving of meaning in an equivalent EFL text?**
- 3. Is there a monotonic relation between these subjects' reading proficiencies across different genres in English?**

- 4. Are cognitive and meta-cognitive reading strategies used by the subjects whilst reading in their Italian L1 applied to reading similar texts in EFL?**
- 5. Are there linkages between attitudinal and contextual factors, on the one hand, in the subjects and the development of their EFL reading proficiency, on the other?**
- 6. So, what are the essential features of Italian↔English transfer in the context of this research?**

The secondary research questions are:

- 1. What is the nature of the reading strategies applied? (§RQ4)**
- 2. How frequently are these strategies applied? (§RQ4)**
- 3. If they are not applied, what might be the reasons? (§RQ4)**

Given the theoretical framework discussed in the previous chapter and my research questions, I investigate the research problem by taking into account:

- (i) the phases of the study;
- (ii) the subjects;
- (iii) the sample size;
- (iv) the data generating instruments;
- (v) the test duration.

The above details are illustrated in the overall research design of the study in Table 1 below:

Table 1. Overall research design of the study

Phase	Subjects	Sample Size	Date	Excerpt/ Text name	Data-generating instruments Test content	Test Duration (minutes)
Phase 1 Pilot Study RQs addressed: 1-3	2 nd year economics students	n=15	29 th October 2004	A	<p>Test A1 Italian economics textbook (basic level Italian):20 grammatical MCQs in Italian</p> <p>Test A2 Italian economics textbook (basic level Italian): 4 informational MCQs in Italian</p>	30 mins
		n=15	15 th November 2004	B	<p>Test B3 Italian economics textbook excerpt (advanced level Italian - translation of excerpt C): 20 grammatical MCQs in Italian</p> <p>Test B4 Italian economics textbook excerpt (advanced level Italian - translation of excerpt C): 4 informational MCQs in Italian</p>	30 mins
		n=15	1 st December 2004	C	<p>Test C5 English economics textbook excerpt (advanced level English - original version of excerpt B): 20 grammatical MCQs in English</p> <p>Test C6 English economics textbook excerpt (advanced level English - original version of excerpt B): 4 informational MCQs in English</p>	30 mins
Phase 2 Main Study RQs addressed: 4-6.	2 nd year economics students	n=69	28 th February 2005	D	<p>Test 1 Generic English journalistic text: 20 grammatical MCQs in English</p> <p>Test 2 Generic English journalistic text: 4 informational MCQs in</p>	30 mins

					English	
		n=73	15 th March 2005	E	<p>Test 3 English economics textbook excerpt: 20 grammatical MCQs in English</p> <p>Test 4 English economics textbook excerpt: 4 informational MCQs in English</p>	30 mins
		n=33	4 th April 2005	F	<p>Test 5 Italian economics textbook excerpt (similar to excerpt E): 20 grammatical MCQs in Italian</p> <p>Test 6 Italian economics textbook excerpt (similar to excerpt E): 4 informational MCQs in Italian</p>	30 mins
		n=30	21 th April 2005	G	<p>Test 7 Business Journalistic Text: 20 grammatical MCQs in English</p> <p>Test 8 Business Journalistic Text: 4 informational MCQs in English</p>	30 mins
RQs addressed: 4-7			4 th April 2005		<p>Questionnaire 1 58 cognitive/meta-cognitive strategy closed Qs in Italian Likert rating system</p>	30 mins
RQs addressed: 10			5 th May 2005		<p>Questionnaire 2 50 factual, motivational, attitude questions in Italian yes/no ranking system</p>	30 mins
			12 th May 19 th May		<p>Interviews 1 and 2 In-depth semi-structured interviews with academics: pre-set open-ended questions in Italian</p>	1 hr each

4.4 Research method

4.4.1 Case study

A case study approach is the research method I follow in this study. As a research method the case study is used in many different situations to contribute to knowledge of phenomena that can range from individuals, groups, organisations to politics and/or society. Hammersley and Gomm (2000) claim that, for example, medical practitioners, psychologists, lawyers, managers and detectives deal with cases, which implies that the case method is an influential component of several fields of professional education and various forms of occupational practice.

However, these close links between case study research and occupational practice have sometimes been regarded as a sign of weakness originating from a lack of rigour, due to the implementation of unsystematic procedures, or from equivocal evidence, which biases the direction of the findings and conclusions (Yin 2003:10). In fact, in contrast to experimental research, which involves direct control of variables and where the researcher creates and controls the sources of observation, the case study researcher constructs cases out of naturally occurring social situations. Consequently, case study findings are not considered, by the scientific world, to be as generalisable as those from designed experiments, wherein generalisation is most importantly characterised as being:

...truly universal, unrestricted as to time and space. It [the generalisation] must formulate what is always and everywhere the case, provided only that the appropriate conditions are satisfied. (Kaplan, 1964: 91).

In other words, generalisation¹⁹ entails assertions of lasting or broad value that are context-free – so that attention can be focussed on only a few variables (the context usually being a controlled laboratory environment) – and assumptions deriving from multiple sets of experiments replicated under different conditions. This substantiates the widely held scientific view:

Scientific knowledge is proven knowledge. Scientific theories are derived in rigorous ways from the facts of experience acquired by observation and experiment. Science is based on what we can see and hear and touch

¹⁹ From John Stuart Mill to today's post-positivism, generalisation is among the most basic goals of scientists. For Mill, social and natural sciences have identical aims that is, the discovery of general laws that serve as explanation and prediction. For the positivists, the laws that govern matter and energy on small scale must be identical to those on a very large scale, thus governing laws would be universal. Also a number of post-positivists support the continuation of dependence on generalisability through their criterion that science will be successful if it can produce increasing prediction and control of the environment (Lincoln and Guba, 2000).

etc. Personal opinion or preferences and speculative imaginings have no place in science. Science is objective. Scientific knowledge is reliable knowledge because it is objectively proven knowledge (Chalmers 1982).

Therefore, the difficulty of generalising from case studies alone is considered detrimental by the researcher who is not interested solely in the outcome of one particular investigation but who assumes the results of one case will be identical to those of other cases (Thomas 2003). Taylor (2001) argues that this view is associated with the physical sciences and it embraces positivism and post-positivism to which tacit and propositional knowledge are related.

One claim is that through the use of appropriate methods researchers can obtain knowledge of the world and its workings, particularly the causal relationships that operate within it. By identifying such relationships the investigator can apply the research to real-world problems and make predictions at a general level that can be applied to other contexts because his/her derived knowledge is universal.

Another claim is that because research produces value-free and objective knowledge, unaffected by any personal view of the researcher, the findings are neutral and they therefore contribute to a cumulative process which aspires to universal truths. So, positivism can be seen as entailing a study of the frequency, distribution and patterning of observable phenomena, in addition to the relationships between explanatory factors, phenomena and the outcomes of interest.

In this case study, I relate positivism²⁰ to the quantitative analysis of the data I collect, since I use the quantitative positivistic method as complementary to the qualitative method. I do so according to the methodological idea, as Creswell (2003) argues, that the weakness of one method can be addressed and supported by the strengths of the other. Furthermore, in contrast to wide opinion, borrowing from Panikkar (2005), it is unlikely that scientific knowledge can be totally neutral or value-free, since knowledge always originates in a specific culture. Hence, the act of observing facts may embody the power and creativity of the specific culture wherein the scientific experiment takes place. Moreover, because other cultures can apply other approaches, scientific knowledge is more likely to be seen as a fragment or as a specialisation of knowledge related to an individualistic vision of human beings.

²⁰ Positivism indicates that whatever cannot be seen, or that cannot be a mere fact, or that cannot be a component of reality itself is not objective valuable knowledge.

Consequently, when the object of observation is human behaviour, as in this case study, I think it is crucial not to discard the positivist method, but rather to complement it with others, in order to attain a multi-view of the research problem. In other words, I use the quantitative analysis of my data to establish more precise evidence of the effect of causal variables between conceptual knowledge in Italian and English and the effects on reading proficiency in Italian and English.

Such relationships, however, are primarily analysed at a qualitative level, against my theoretical framework. This approach I believe to be important, firstly, to more accurately interpret the attitudes and performances in tests of subjects with similar/dissimilar characteristics regarding reading texts in Italian and English, and toward the learning context. Secondly, it will enable me to identify the subjects' identities intertwined with the data. Thirdly, given my subjectivity as test item/questionnaire designer, researcher, observer and practitioner in this study, its results can be considered suggestive rather than indubitable.

This aspect may also be viewed as biasing the value of the tests, which replicate those in the post-course examinations. I, however, think that my personal involvement and choice of type of tests can be considered positive, as they increase the proximity to the reality of the tertiary learning context in which this study is carried out. Moreover, these factors, by typifying a qualitative paradigm, provide this study with external validity as well as with data that would not be derivable from quantitative methods only.

4.4.2 Relativism and realism

A contrasting position to positivism is the relativist tradition, associated with critical theory, post-modernism and post-structuralism, which aims at providing an interpretation of reality, not at capturing the truth. This position derives from the social world being viewed as complex and dynamic, with so many variables operating in any situation that it is rarely possible to make dogmatic statements of fact. In addition, because reality is ever changing, there cannot be one truth, so any account of a social phenomenon is partial and never neutral for it always reflects the researcher's understanding and interest. Taylor (2001: 12) thus asserts that truth claims cannot be incontrovertibly checked because accounts of the world are not simple records of what already exists but are partial, situated and relative, that is, related to the researcher's world view and value system.

This relativist approach addresses the role of language in shaping every individual's social reality and it is linked to the Sapir-Whorf weaker hypothesis of linguistic relativity (§Ch. 3). For this hypothesis two languages are never sufficiently similar to be considered as representing the same social reality because societies live in different worlds, not in a same world with different labels. Reality, therefore, is created by each person's subjective experience and cultural identity.

The realist approach, by contrast, argues that there is a reality which is independent and outside an observer, even if it might be impossible for the latter to observe or describe reality accurately. Unlike positivism, though, realism considers explanation not as stating regularities or predicting outcomes but as giving an account of how the world appears to work.

4.4.3 Contextual syncretism

Given the importance the reality of a context holds, not only in the relativist and realist tradition, but also in my theoretical framework, I thought it crucial for me to propose a multidimensional description of context with more than one meaning. That is, context can be viewed as the subjects' voices reflecting their mental activities when using cognitive/meta-cognitive reading strategies, when construing or deriving meaning in the texts they read, or when expressing their personal attitudes towards the value of reading in EFL.

But context can also be viewed as description of the reality outside and independent from the observer and the subjects, that is, the physical context- reduced environment wherein the subjects:

- (i) learn economic concepts;
- (ii) undergo the influence of the context itself, whilst transferring their bidirectional conceptual knowledge from L1 to FL when reading and comprehending different genre texts.

I therefore use the term **contextual syncretism**²¹, to account for the analytical approach I apply in this study. By doing so, I refer to a wider conception of context which includes the combination of the two traditions of relativism and realism but also Gee's (2000) definition of context as something nearly limitless. By contextual syncretism I refer then to the combination

²¹ To my knowledge, based on internet searches, my coinage and use of this term is unique.

of the material, the mental, the personal, the interactional, the social, the institutional, the cultural and the historical aspects which are created by subjective experience in a reality which is also independent and outside each human subject.

The features which are seen as negatively characterising case studies have now been counterbalanced by the assumption that “all sciences are, to some degree, interpretive and hermeneutical, all observation participant observation” (Robson 1993:59) and that research should be practically applicable, or integrated into practical activities. From this perspective, as Yin (2003:10) claims, case studies, like experiments, are generalisable to theoretical propositions and not to populations or universes.

Drawing on Yin (*ibid.*), the purpose of this case study is to expand and generalise theories leading to analytic generalisation, and not to just enumerate frequencies determining statistical generalisation. In analytical generalisation the investigator strives to generalise a particular set of results to some broader theory. Specifically, in this study theories about an interdependence between domain-specific conceptual knowledge in Italian and the comprehension of corresponding concepts in English texts is the domain in which the results can be generalised.

A case study can be defined as an empirical inquiry that includes the contextual conditions which are judged pertinent to the phenomena examined. It investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (*ibid.*:13). I therefore consider a case study an ‘instance in action’, a selection of an instance from the class of objects and phenomena I investigate and reflect upon the way this instance functions in context. In this particular study the instance/s is/are how the Italian university students “function” in their context-reduced environment.

Moreover, since case studies allow us to observe the characteristics of an individual unit and to discover and analyse the life cycle of the unit, with a view to establishing generalisations about the wider population to which the unit belongs, I consider this method the most suitable for this study because it is strong in reality.

Hence, I take it as a purposeful approach in attempting to describe and explain the complex issue of transfer and interplay of bidirectional Italian↔English domain-specific conceptual knowledge whilst reading. In order to understand such a complex issue, this case study uses an integration of

data and knowledge from various sources which, as Yin (ibid.) and Scholz and Tietje (2002) suggest, need to converge in a triangulation and in theoretical propositions to guide data collection and analysis.

4.4.4 Triangulation

Triangulation, as Chilisa and Preece (2005) argue, is based on the assumption that the use of multiple methods and data sources can help eliminate biases in the study and aid objectivisation of the research process to a limited extent. Robson (2002: 372) defines triangulation as “the checking of a qualitative method with those of a quantitative method in order to reduce threat to validity reactivity, researcher bias and respondent bias”. On the other hand, Denzin (1998) suggests triangulation might be achieved by using different and multiple sources (e.g. informants), methods, investigators or theories.

In this study I use the following forms of triangulation:

- (i) a data triangulation: using different sources such as tertiary level students, academics, reading comprehension tests, factual and attitude question questionnaires, in-depth semi-structured interviews;
- (ii) methodological triangulation: combining qualitative and quantitative approaches;
- (iii) observer triangulation: using peer debriefing and support;
- (iv) theory triangulation: using the already mentioned theoretical frameworks.

Details on how I implement these instruments, their purpose in the triangulation and the time sequence I follow are provided in: 4.3.11 Data, Questionnaire 1, Questionnaire 2, Interviews.

4.4.5 Single embedded case studies

The integration of knowledge deriving from triangulation is what characterises embedded case studies which apply multiple methods for data generation. Yin (1986) describes embedded case studies as implications of a case study involving more than one unit of analysis; that is, when attention is given to subunits which focus on different aspects of the case with different methods. For instance, in my study the method comprises the application of qualitative and quantitative analyses. The incorporation of subunits of analysis within the single case adds extensive analyses whilst enhancing the insights into the single case. It is essential to underscore, though, that each

unit of analysis is clearly embedded within the larger case which is the major interest of the study (ibid.; Scholz and Tietje 2002).

This study is consequently a single embedded case study involving attention to more than one unit of analysis. The single case is the characteristics of transfer of domain-specific conceptual knowledge in reading performance and proficiency of L1 and EFL, whereas the subunits include the analyses of the outcomes of the different reading proficiency tests, questionnaires and interviews. These represent both the different data collection techniques and the variables forming evidence which together help to depict and investigate the issue within its real life context.

4.4.6 Validity: a core issue

Case studies, as mentioned, have to represent a logical set of statements in an argument that must be without errors in its internal logic, so the validity issue is crucial. The latter is influenced by the standards of physics, natural sciences and philosophy. Particularly, two etymological types of validation were distinguished by Karl Popper (1969): verification, which accepts a finding, even if overthrown by criticism (Popper 1969: 228); and falsification, which accepts a finding only if it is verifiable and probabilistically confirmed. From this viewpoint, social sciences and, more specifically, case studies provide prototypes of falsificationism. However, if the inherently partial observation and prediction approach adopted by applied natural sciences falls within verificationism, then so can embedded case studies be considered open to validation.

Four aspects are essential in focussing on validity in case studies:

- (i) construct validity – establishing correct operational measures for the concepts it claims to be measuring;
- (ii) internal validity – establishing one or more causal relationships, where specific conditions are shown to lead to other conditions;
- (iii) external validity – defining and establishing the domain to which a study's finding can be generalised;
- (iv) reliability – demonstrating that the operations of a study can be repeated with the same results (Yin 2003: 34; Stake 1995; Miles and Huberman 1994).

As to point (iv) I believe it is important to stress that, following Scholz and Tietje, in statistical terms quantitative reliability-consistency measures calculate the extent of the measurement or findings that are due to variability. Reliability is therefore defined by the degree to which the findings are independent from accidental characteristics of the research (Scholz and Tietje 2002: 334). This concept overlaps with objectivity but, once again, if embedded case studies include not only quantitative but also qualitative analyses they entail an interpretation of reality that is dynamic and mutable. This means that there cannot be one neutral truth but a personal interpretation of the phenomena investigated by the researcher.

I therefore believe a core issue for this type of case study is validity, as all four categories are applied, given the fact that the case is an instance from the class of objects and phenomena I investigate, and my focuses being on how this particular instance functions in a context. It is essential to stress, though, that in an embedded case study, reliability is fairly weak because a context may vary partially or change altogether for innumerable reasons, as context is a combination of different aspects which I have already termed contextual syncretism. Consequently, after performing this study, there might only be a small chance that the same results can be obtained, even if the same procedures are followed.

4.4.7 A mixed methodology

Flowing from these considerations, the distinction between qualitative and quantitative approaches might actually be considered blurred, since there is not a clear cut division between qualitative and quantitative research, as Strauss and Corbin (1990), Tashakkori and Teddlie (1998), Thomas (2003) and Creswell (2003) argue. Statistical data can, indeed, be found in ethnographic and holistic studies and qualitative interpretations are part of quantitative studies. The difference is a question of emphasis on explanation and control in quantitative research, as opposed to interpretation and understanding of complex relations in qualitative studies. Each approach is, therefore, useful to answer particular types of questions, as already mentioned.

Regarding generalisation, quantitative research emphasises the uniqueness of cases as a variation outside the system of explained science, whereas qualitative research treats the uniqueness of a case and its context as important to understanding (Scholtz and Tietje 2002). The main aim of this study is therefore to achieve an understanding of the particular case and its unique features

in its complexity, by combining the qualitative and quantitative procedures, without necessarily providing generalisations (Stake 2002).

4.4.8 Questionnaires

The term *questionnaire* has been used to refer to various techniques of data gathering, from self-administered questionnaires to different interview schedules, and to various types of questions: open-ended or closed questions, attitude scales or tests. Oppenheim (1992) and Chilisa and Preece (2005) claim questionnaires are an important research instrument for data collection of a representative sample of population from which something can be learnt about the larger population from which the sample was drawn.

Another function of questionnaires is to measure some characteristics and/or opinions of its respondents. Specifically, my sample is based upon statistical probability theory which allows me to ascertain:

- (i) the patterns and variations in L1 reading performance and EFL proficiency scores;
- (ii) the frequency of cognitive and meta-cognitive reading strategies applied whilst reading texts in English;
- (iii) a monotonic relationship between reading proficiency in different genres;
- (iv) possible associations and correlations between attitudinal and contextual factors and the development of EFL reading proficiency.

Clearly, the underlying idea of causality which characterises questionnaires, as well as the use of my study's theoretical ideas which find their outlet in the questionnaire's questions, may be seen as paralleling positivism. If the replies to the questions confirm my theoretical assumptions then confidence in the questionnaire's explanatory potential is enhanced, whilst the contrary would subject the questionnaire to falsification.

May (1995) argues that in order to achieve comparable samples it is essential to pay attention to the conditions under which a questionnaire is administered. Thus, by applying the concept of standardisation, all respondents in my study are asked the same questions in the same way. If differences in answering those questions emerge, these variations are seen as true differences of

opinion, rather than contrasts arising from how the question is asked or as effects of the context in which the questionnaire is administered.

By measuring the characteristics of single participants and their attitudes, a questionnaire can provide me with the means of checking the extent to which findings are applicable to other contexts, i.e., are replicable. The reliability of the results from the data collected in the case study is therefore important.

My method of data collection therefore comprises group-administered questionnaires which I present and explain to the groups of respondents, underlining the purpose of my inquiry (§ 4.3.11). All finished questionnaires are checked to verify their completeness.

The questions in the factual and attitudinal questionnaires are the closed multiple choice type in which the respondents are offered the possibility of alternative replies. Such questions in Questionnaire 1 (§Appendix H) are based on the Likert attitudinal scale in which the respondent locates an answer on an attitude continuum. This method enables the researcher to measure a particular aspect of the case, the respondent being invited to agree or disagree at various degrees on questions pre-coded as *never*, *nearly ever*, *don't know*, *nearly always*, *always*, i.e., from the least to the most frequent strategy implemented. This scaling method is seen as reducing the effects of binary responses which tend to be the major critique to single questions.

However, in order to attain a unidimensional assessment of attitude and a firmer ground for subsequent interpretation and analysis of questions in part already incorporated in Questionnaire 1, YES/NO answers are offered to respondents on factual, motivational and attitudinal questions in Questionnaire 2 (§Appendix I). My aim, in the latter, is to measure well defined and clear-cut aspects of the subjects' reading habits, motivation, strategies at various educational levels, learning motivation and opinion of the context-reduced environment.

Closed multiple choice answers are most frequently seen negatively with disadvantages related to a perceived loss of spontaneity and expressiveness of the respondents and an amount of bias created by a lack of freedom in expressing their opinion, and/or in forcing them to choose answers they would not think about. One of the advantages of closed multiple choice answers, though, is that they do not require respondents to write, so quantification is straightforward and group comparisons are easy and can be useful for testing specific assumptions (Oppenheim

1992). These types of questions allow me, within a given length of time, to ask for more information in attempting to answer my research questions more comprehensively.

Two types of questions are used: factual and attitudinal, reflecting the personality of the respondent. May (1995) argues that attitude questions facilitate the explanation of individuals' behaviour and are relevant to small scale studies. The answers can be related to the respondents' background, or to any other explanatory variable, and assumptions deriving from theories can be tested. I consider such questions to be subjective indicators in the questionnaires which are equally administered to every group of respondents for 30 minutes. Each respondent is assured anonymity.

4.4.9 Interviews

I also include *interviews* in the methodological triangulation of the data for this study. The interviews allowed some Faculty members to have a voice and provide me with information, although highly subjective, on the teaching methodologies of economics concepts to the subjects analysed in this study.

Interviews build on ordinary conversations but differ from the latter because they are guided by the interviewer who introduces a limited number of questions to the interviewee, in order to explore a specific topic in depth (Rubin and Rubin 1995). Interviews, therefore, are rich data sources on people's experiences, opinions and feelings particularly from the in-depth individual data gathering strategy which depends on key informants. These are people who, for several reasons, have valuable insights that contribute, with in-depth information, to understanding a context or an issue. They enhance the credibility of the study, though the selection of such informants may be susceptible to selection biases because it is not random, as Chilisa and Preece (2005) argue.

Nevertheless, individual interviews have been critiqued for the dominant role played by the interviewer in them (Tyrell 1998; De Vault 1999; Scheurich 1997), for his/her preconceived ideas and attitude towards the researched who, most frequently, have a passive role, or are quoted only when cited to illustrate an example. The anonymity of the interviewees is, however, partly linked to conventional educational research method issues which require data from the interviewees to be treated with confidentiality.

In this study I use a combination of in-depth (also called focussed) and semi-structured techniques, or as Thomas (2003) suggests, the converging or funnel strategy which is designed to incorporate advantages of loose and tight methods, as many qualitative interviews do.

4.4.10 In depth semi-structured interviews

In semi-structured interviews the focus is decided by the interviewer with pre-set questions, but the interviewer is free to probe beyond the answers to seek clarification and elaboration on the answers given by the interviewee (May 1995; www.sociology.org.uk/methfi.pdf). In this type of interview the researcher tries to build a positive rapport with the interviewee which results in the questions not necessarily being worded in the same way for all interviewees. This allows the latter to answer on their own terms, which provides broad comparability because the text of the interview speaks for itself and is not constrained into categories typifying standardised interviews.

Such interviews are characterised by uniformly structured questions and answers for a calculated number of respondents viewed as representative of a population for generalisation purposes. The standardised method is also assumed to obtain information uninfluenced by the context, whereas in an in-depth semi-structured interview, such as those I carry out in this study (§4.3.11 Data generating instruments), the context and the freely expressed views of the interviewees are an important aspect of the process (May *ibid.*).

The reason for adopting the semi-structured interviewing method is driven by my need to attain in-depth information on the context in which reading in EFL takes place as well as verifying the possible commonalities existing between qualitative and quantitative research methods. Specifically, a number of pre-set questions is prepared before the interviews to explore the context-reduced environment, the interviewees' curriculum and pedagogy as well as the features characterising different scientific disciplines.

The type of questions characterising these in-depth focused interviews are open-ended. They allow interviewees to talk freely – according to their “frames of reference” – and, as May (*ibid.*) claims, contribute to enhancing qualitative depth. One of the advantages for the study is to include the meanings and the interpretations that each interviewee attributes to events, relationships, knowledge, pedagogical and research methods and expectations, thus providing a greater understanding of the interviewee's viewpoint.

I believe the interviews in this study attain high validity by asking the interviewees a few broad, open-ended pre-set questions in detail and in-depth about:

- (i) the interviewee's position in the setting;
- (ii) his/her view in relation to the topic at hand;
- (iii) the meaning behind his/her actions

with little intervention on the part of the interviewer.

Validity is further enhanced by lack of constraints on the interviewees and by the recording of their speech which led to further analyses. On the basis of their replies, more pointed successive questions enable the researcher to gather information from a broader to a narrower perspective. The strengths of this method are based on picking up information, during the interviews, which is new to the interviewer. This resolves the possibility of pre-judging what is or is not important information while providing visibility to the interviewees.

Some limitations in this method derive from the difficulty in repeating this type of interview, since my samples tend to be small and the interviewees can be asked different questions. Consequently, it is difficult to generalise as one would in a positivistic paradigm. However, the interviews are part of the embedded case study triangulation in which they are considered subunits collected at the end and part of an instance in action within a context. All interviews provide contextual background for the study and last approximately one hour each. Moreover, as per the questionnaires, informed consent is secured from all the interviewees in this research.

4.4.11 Data-generating instruments

The triangulation of data includes:

- **Context** (§Ch.2 The Faculty of Economics and its EFL course)
- **Subjects**

The subjects of the research are drawn from the students, averagely 21 years old, attending the EFL B2 intermediate level course two hours p/week in the UNIFI Faculty of Economics (Italy) over two semesters (§Ch.2). All subjects are volunteers and are assessed during their English

lectures. Each test is administered approximately every 15 days over two semesters (for precise dates §Ch.4 Table1), whereas Questionnaire 1 is administered after the second last test and Questionnaire 2 at the end of all the tests. All test answers are successively analysed quantitatively and qualitatively (§Ch.5).

However, only subjects providing complete data prior to the end of the second semester are analysed at the end of all data collection, since Statistica 7.0, the software I implement for the statistical analyses, discards all incomplete cases. The core number of subjects therefore represents intact data available for the quantitative analysis (§Ch.5 Target subjects) and it forms a small sample which, nevertheless, reflects the fluctuating classroom populations in the Faculty.

Small samples are often critiqued because in general the greater the number of observations in a sample, the more powerful the statistical approaches for acquiring evidence for context-specific inference will be. All statistical tests are, however, based upon an assumption at some stage that invokes “all other things being equal”, some particular numerical signal is emerging.

Some small samples are associated with fixing comparisons into contexts when “all other things being equal” is clearly demonstrable as true. Small samples are not only acceptable per se, but can also have substantially imposed statistical power (Robson 2002).

In this study several tests (up to four in number) are compared to examine the possibility that they are equivalent in difficulty or facility. Such comparisons can be made by having four distinct samples of large size. However, the device of having a smaller sample of persons (e.g. $n=15$) who write each of the tests, achieves the effect of having “all other things equal” because the tests are compared by using the test comparisons observed within each person’s scores and aggregating that signal. Specifically, the Friedman ANOVA of ranks test gives the criterion for making judgements about differences between tests taken under these matched circumstances, for a very wide range of small sample sizes. It is sensitive to the existence of monotonic relationships between the test scores as variables.

The inference from a random sample applies not only to the sample but also to that general context from which the sample was drawn, though the inference is not necessarily universal. This type of reasoning from small matched samples is valid even if it contrasts with perhaps more familiar comparisons arising from larger unrelated samples (of possibly distinct sizes)

applied separately to single test instruments, one at a time. Although the representativity of larger samples also requires supportive argument, that issue is distinct from size alone.

Statistics, moreover, cannot decide the representativity of the sample which is a domain-specific judgement. Statistics discern the existence and measure the weight of evidence for a signal such as difference between the tests (in this case) and its strength relative to any specific sample size (Personal communication from Prof T. Dunne, Department of Statistical Science, University of Cape Town, 15.02.2009).

- **Instruments** (§Ch.4 Table 1)

Considering that differences in subjects' proficiency levels in reading economics and business texts in English were considered to vary according to:

- (i) how the core economics concepts are learnt in Italian;
- (ii) the readability of the discourse in which economics concepts appear in different level Italian textbooks;
- (iii) subjects' knowledge in Italian about a domain-specific context brought to the text;
- (iv) subjects' capacity to transfer their conceptual knowledge bidirectionally between Italian and EFL whilst reading;
- (v) the relationship between their linguistic competence in understanding concepts in Italian – L1 – and their linguistic proficiency for understanding the same concept in EFL - whilst reading.

The following tests and questionnaires were chronologically administered to the subjects (§Ch.4 –Table 1):

Text A – (§Ch.5 and Appendix 1) – (basic level text²² administered and collected on 29th October 2004) – an Italian undergraduate economics textbook (Ecchia and Gozzi 2002) excerpt focussing on core concepts taught in the first year mandatory economics course with 20 grammatical (i.e., relational words, lexical items, etc.) MCQs in Italian and 4 informational MCQs in Italian.

Purpose:

²² I distinguish basic level texts from advanced level texts on the basis of their syntactical complexity and the inclusion of a higher or lower number of specialized lexical items in the texts.

1. to measure for evidence and attempt an explanation of data collected on subjects' reading ability in their L1.

Text B – (§Ch.5 and Appendix 2) – (advanced level text administered and collected on 15th November 2004) – from an Italian economics textbook (Blanchard and Fischer 1999) translated version from English focussing on core concepts learnt during the first year mandatory economics course with 20 grammatical MCQs in Italian and 4 informational MCQs in Italian.

Purpose:

1. to measure for evidence and attempt an explanation of data collected on subjects' possible readability variation of advanced level texts in their L1;
2. to measure for evidence and attempt an explanation of whether concepts learnt in L1 influence reading comprehension of Italian economics and business texts.

Text C – (§Ch.5 and Appendix 3) – (advanced level text administered and collected on 1st December 2004) – from an English economics textbook (original version Blanchard and Fischer 1989) – focussing on core concepts learnt during the economics course with 20 MCQs on grammar in English and 4 informational MCQs in English.

Purpose:

1. to measure for evidence and attempt an explanation of variation in scores between the English and Italian translated version;
2. to measure for evidence and attempt an explanation of the use of structural components leading to meaning derivation;
3. to measure for evidence and attempt an explanation of bidirectional Italian↔English conceptual interdependence.

Text D – (§Ch.5 and Appendix 4) – administered and collected on 28th February 2005 – a news article (International Herald Tribune 2004) in generic English with 20 grammatical MCQs in English followed by 4 informational MCQs.

Purpose:

1. to test and collect supplementary data on reading score variation;
2. to measure for evidence and attempt an explanation of whether the subjects refer to their knowledge of the world while deriving meaning from the textual structure;
3. to measure for evidence and attempt an explanation of the use of structural components leading to meaning derivation;

4. to measure and attempt an explanation of reading proficiency across genres in English.

Text E – (§Ch.5 and Appendix 5) – administered and collected on 15th March 2005 – from English economics undergraduate textbook (Sloman 2000) includes 20 MCQs on grammar in English and 4 MCQs on informational reading comprehension in English.

Purpose:

1. to measure for evidence and attempt an explanation of the subjects' capacity to use structural components to derive meaning;
2. to attempt an explanation of bidirectional domain-specific conceptual interdependence between corresponding concepts in English and Italian;
3. to measure reading proficiency across genres in English.

Text F – (§Ch.5 and Appendix 6) – administered and collected on 4th April 2005 – similar to Text E but not its translation – from an Italian economics textbook (Blanchard and Fischer 1999) includes 20 MCQs on grammar in Italian and 4 MCQs on reading comprehension in Italian.

Purpose:

1. to establish if there is a score difference between the same subjects reading in Italian and English (Text E vs. Text F);
2. to measure and attempt an explanation of their capacity to use structural components to construe meaning in L1;
3. to examine if economics concepts have been learnt in L1 and understood as part of the process of reading comprehension.

Text G – (§Ch.5 and Appendix 7) – administered and collected on 21st April 2005 – a business article downloaded from a business to consumer website in English on the Internet (www.businessnews.com), in order to examine: if comprehension varies according to a different genre and text type; if background and conceptual knowledge influence in the process of reading such texts. The text includes 20 MCQs on grammar in English and 4 MCQs on informational reading comprehension in English.

Purpose:

1. to measure the subjects' capacity to use structural components to derive meaning;
2. to measure for evidence and attempt an explanation of bidirectional domain-specific conceptual interdependence between corresponding concepts in English and in Italian;
3. to measure reading proficiency across different genres.

Questionnaire 1 – (§Appendix H) – administered and collected on 4th April 2005 – similar to a think-aloud protocol (Carrell 1989), is administered after the second last test (F) to investigate which particular cognitive/meta-cognitive strategies that the subjects implement whilst reading in Italian and in English. It also investigates the differences or similarities in applying reading strategies in both languages. Questionnaire 1 comprises 59 questions. The answers are rated according to the Likert rating system from 1 to 5, from the least to the most frequent strategy implemented.

Purpose:

1. to measure the frequency of the reading strategies applied in L1 and EFL by the subjects;
2. to attempt an explanation of the strategies applied;
3. to establish subjects' interrelation of their cognitive/metacognitive reading strategies applied whilst reading genre-based domain-specific texts.

Questionnaire 2 – (§Appendix I) – administered and collected on 28th April 2005 – comprises factual, motivational and attitudinal questions. The Questionnaire is administered to typify:

1. the subjects' attitude to EFL within the context-reduced environment and outside it;
2. the value the subjects attribute to English;
3. the subjects' attitude towards the language and the context-reduced environment in which their learning is embedded.

Questionnaire 2 comprises 50 questions and the answers are ranked according to the yes/no system.

Interviews 1 (12th May 2005) – (§Appendix J) – and **2** (19th May 2005) – (§Appendix K). The interviewees are academics of Economics and Mathematics at the UNIFI Faculty of Economics, Italy.

Following the combined method of in-depth semi-structured interviews the interviewees are asked a few pre-set open-ended questions in order to reconstruct:

- the economics and business core concepts taught during their courses;
- the conceptual background knowledge these EFL subjects are expected to bring to the classroom;
- how the academics convey their knowledge;
- the subjects' learning methods of the concepts;
- the academics' pedagogy;

- what the subjects are expected to know at the beginning of the course;
- what the subjects are expected to know by the end of the course.

4.4.12 Planning the data analysis

a)

In order to measure the subjects' L1 competence in Italian and their EFL proficiency, all scores for the structural MCQs, informational MCQs of tests A, B, C, D, G, E, F and G followed by the answers to Questionnaire 1 and Questionnaire 2 are coded and analysed quantitatively. Computing all scores allowed me to explore the:

- (i) frequency of variables
- (ii) strength of relationships between variables
- (iii) the extent to which the data are similar
- (iv) the degree to which they differ.

Descriptive statistics, with basic information as to the mean and median, minimum and maximum values, some measures of variation, and the shape of the distribution of the variable, are generated from the responses to all the MCQs. This summary is followed by the non-parametric Kendall's Tau, a measure of correlation or association to give an indication of both strength and the direction of any monotonic relationship between variables. Kendall's Tau deals with consistent ties (Robson 2002).

This analysis is followed by the nonparametric Friedman ANOVA test of variance of ranks in matched samples. The test allows the matching of individual scores across various conditions. The analysis indicates whether there are significant differences between the tests after taking into account only those individuals who took each and every one of the reading comprehension tests within a particular analysis.

These analyses are repeated measures (ibid.) assessing the evidence of consistent contrasts occurring in measurements carried out on the same subjects under different conditions. In consequence, the analyses enable me to report and compare the distributions of scores at an inter-genre and intra-genre level, and to make the case for differing levels of scores against a robust background of common test participants. The analyses, furthermore, allow me to eliminate any

artifacts associated with having different sets of participants of unknown contrasting abilities as the source of evidence.

The analytical protocols are appropriate computer programmes for all the data collected, captured and saved. Moreover, the computer programmes used are part of an a priori system – Statistica – advised by the Department of Statistical Sciences (University of Cape Town) into which all the data is inserted.

b)

The qualitative analysis of the quantitative data generated by the statistical processing of all the test and questionnaire scores enables me to investigate and interpret how meaning is construed/derived in the texts by the subjects. That is, how they refer to grammatical and informational textual structure, whilst reading different genres and/or text types of domain-specific knowledge.

To do so, as mentioned in Ch.4-4.2.1, I follow Gee's (2001) Discourse Analysis approach and Halliday and Hasan's (1976) concept of *semantic unit*. Such a method of analysis enables me to show:

- a) that texts of a single genre tend to use the same cohesive building blocks forming internal criteria;
- b) that genres can include various text types for communicative purposes, which in this study applies to tests D and G that are different text types yet belonging to the news genre;
- c) that such an approach enables me to highlight if the subjects have genre and text type knowledge to aid them in building meaning through the texts read.

c)

I moreover analyse qualitatively the interviewees' replies, although they are only two and highly subjective, for further information on the subjects' knowledge and attitude toward curriculum content and for creation of another link in the chain of evidence in this study.

4.5 Concluding remarks

In sum, I adopt a mixed qualitative and quantitative methodology to account for subjects' bidirectional L1↔EFL conceptual transfer process when reading genre-specific texts in EFL in

this single embedded case study. The methodology allows me to triangulate my findings, confirm or discover any contradictions among data and findings, and assist my qualitative interpretation with statistical counts. The validity and understanding of my research is consequently increased.

The quantitative data generated by the statistical processing of all the test and questionnaire scores enable me to compare their variations at an inter-genre and intra-genre level. The qualitative analysis of the quantitative data enables me to attempt an interpretation of how the subjects construe/derive meaning in the texts. I do so by adopting Gee's (2001) Discourse Analysis and Halliday and Hasan's (1976) approaches to meaning in different genres. The findings are then triangulated with the qualitative interpretation of the interviews.

The qualitative approach provides this single embedded case study with external validity as well as with data that would not be derivable from quantitative methods only. This approach also allows me to contextualise the Italian subjects' reading proficiency of economics and business texts. Indeed, the combination of the subjects' material, mental, personal, interactional, social, institutional, cultural and historical experience in the academic environment of the UNIFI Faculty of Economics, which is independent and outside each subject whilst reading in L1 and EFL, is crucial for a wider comprehension of the cognitive processes and metacognitive strategies in reading genre-specific L1 and EFL economics/business texts.

The different types of data collected to be considered within a contextual syncretism are analysed in Chapter 5 which follows.

4.6 Research Ethics

All participants of this study are given prior information of the research to be carried out according to the requirements of the Research Ethic Rules of the University of Florence. Participants will not have direct reward, benefit or harm from the research as confidentiality and anonymity of all respondents is preserved throughout.

All results of the research are available on request by the participants.

CHAPTER 5

DATA ANALYSIS

5.1 Target subjects

As mentioned in Ch.2 and Ch.4, the subjects of this study were Italian Economics students enrolled in their second academic year attending the economics-focussed EFL B2 level course. The latter fulfils the FL requirement of the curriculum leading to a degree in Economics or Business. All the subjects brought to the classroom different learner backgrounds and EFL levels. The length of time they had studied English at school before University varied from a minimum of three to a maximum of eight years, according to the type of high school attended. The subjects therefore formed highly heterogeneous classes in terms of their respective levels of proficiency in English.

The groups of subjects responding to the tests and questionnaires were not formed randomly but comprised students enrolled in my classes and who volunteered to participate in this study. Their numbers varied from week to week over two semesters. While such a practice may not ensure sampling validity, it does reflect the varying composition of the usual classroom populations at public universities in Italy.

The variability of attendance affected the number of subjects to whom the reading comprehension tests and questionnaires were administered (§Ch.4). Each test was administered and collected after 30 minutes every 15 days over two semesters; Questionnaire 1 after the second last test and Questionnaire 2 at the end of all tests (for all details §Ch.4 – Table 1). Thus, the total number of subjects who participated overall was $n=83$ but, due to fluctuating attendance and to the statistics software used, incomplete sets of data were deleted. The n =totals analysed varied from $n=73$ to $n=15$ over a period of seven months. For details § Ch.4 – Table 1.

5.2 Research instruments - subunit analysis: excerpts A, B, C

As previously mentioned (§Ch.4), a case study may be seen as a selection of an instance from a class of phenomena which investigates the way this instance functions in context. Within this framework, the instance in my embedded case study was how the subjects performed in their

context-reduced environment in the interplay between domain-specific conceptual knowledge in their L1/Italian, and in their FL, English, whilst reading. So, in order to depict and investigate this instance within its real life context, I collected a set of seven data subunits – A, B, C, D, E, F and G – which included tests, questionnaires and interviews, and which represented all the variables that formed the database which allowed me to analyse these different modes of data capture qualitatively and quantitatively.

The first three of the seven subunits of the instance (§Ch.4) I focussed on were:

1. **excerpt A** of 1085 words in Basic Italian (§Appendix 1), extracted from a basic level Italian economics textbook for undergraduate students (Ecchia and Gozzi 2002), focussing on “monopolistic competition” – *La concorrenza monopolistica*. This is one of the core macro-economics concepts taught during the mandatory first year Economics course;
2. **excerpt B** of 1140 words in Advanced Italian (§Appendix 2), extracted from a tertiary level Italian version (Blanchard and Fischer 1989) of an English macro economics textbook (Blanchard and Fischer 1999). The text focuses on ‘costs of changing prices and real effects of nominal money’ – *Costi di aggiustamento dei prezzi ed effetti reali della moneta nominale* – a core macro-economics concept taught during the mandatory first year Economics course;
3. **excerpt C** of 1060 words (§Appendix 3) was the corresponding original Advanced level English version (Blanchard and Fischer 1989) of excerpt B, *Costs of changing prices and real effects of nominal money*.

Each of the above excerpts included 24 data generating multiple-choice questions, generally the most-used means of assessing reading comprehension, focussing on the text structure and on retrieval cues (§Ch.4). The answers were predetermined in order to avoid ambiguity in the scoring of right or wrong answers and the multiple-choice questions were created to meet the two criteria set by Wolf (1993):

- (i) all items were passage dependent;
- (ii) some of the items required the reader to make inferences.

In addition, to limit guessing, a third condition was included:

- (iii) correct responses could not be guessed by looking at the other answers to the other multiple choice questions on the page.

For each of the 24 multiple-choice questions, three possible responses were created: one correct response and two distracters. All multiple-choice questions could not be answered correctly without the subjects having read and understood relevant parts of the passages. For excerpt A, the MCQs were in Italian, for excerpt B in Italian and for excerpt C in English.

The purpose of administering these first three reading comprehension texts/tests – A, B and C – was to investigate the existence of:

- (i) variation in reading scores generated by different level economics texts in Italian;
- (ii) variation in scores when the same human subjects read the translated Advanced level Italian version (excerpt B) and its original version (excerpt C) in English;
- (iii) reference to the economics concepts learnt in Italian when reading the same excerpt first in Italian, later in English.

Furthermore, following Yin (1989), I considered these to be my pilot study tests, since they helped me to establish the readability levels of the human subjects in their primary language in one genre. Secondly, these pilot tests guided the procedures I would repeat in my Main Study whilst observing a series of phenomena from different angles.

As a reference for a qualitative interpretation of the readability scores on the subunits, I followed Gee's (2001) Discourse Analysis method which focuses on language and its related semiotic systems used in the situation network as well as a Hallidayian framework to underline how meaning in texts is constructed on the cohesion of semantic units (§Ch.4). My preference for Gee's and the Hallidayian approach springs from their viewing any written text as composed of lexico-grammatical relations without which meaning would not take place and by which the co-location of patterns that mark the language of a text are a distinctive social language of a genre.

Within this framework, my analysis of the responses to excerpts A, B and C started from a scrutiny of the readability scores attained by the subjects on the multiple choice questions related to the textual structure and to the reading comprehension of the economics textbook excerpts.

The analytical method applied was that of Descriptive Statistics²³ using Statistica 7.0, a computer programme (Statsoft 2006).

5.2.1 Pilot study – tests A1, A2, B3, B4, C5 and C6 - quantitative analysis

In order to analyse quantitatively 15 human subjects' responses to the tests on understanding excerpts A, B and C, each excerpt was divided into two parts. Part 1 contained the twenty language structure multiple-choice questions; Part 2 included the four informational multiple-choice questions, as already described. Each Part 1 was termed **test A1, B3, C5**. Each Part 2 was termed **test A2, B4, C6**. A correct answer to each question scored 1 mark, whereas a wrong answer to each question scored 0. The maximum possible score on the 20 questions in the first part was 20. The maximum possible score on each second part of the reading comprehension assessment was 4.

(a) Descriptive statistics

Table 5.1 presents the descriptive data generated by the responses to the three reading assessments for the sample of 15 students with intact scores (valid n subjects), that is, they were present at all tests, throughout the long period of testing. By samples I refer to a set of individuals from a larger population which can be as small as 10, although even smaller n 's are possible, as long as the variables' scores are normally distributed within each group and the variation of scores in the two groups is not reliably different (Statsoft 2007).

Test A1

From a comparison of the data illustrated in Table 5.1 and the histograms in Figures 5.1, 5.2 and 5.3 below, in the pilot study, the median²⁴ scores for test A1 ($m_1=16.20$) in Basic level Italian, included in excerpt A, were the highest to be attained among all of the six tests. The distribution of the total scores on the structural 20 multiple choice questions (MCQs) in Italian of test A1

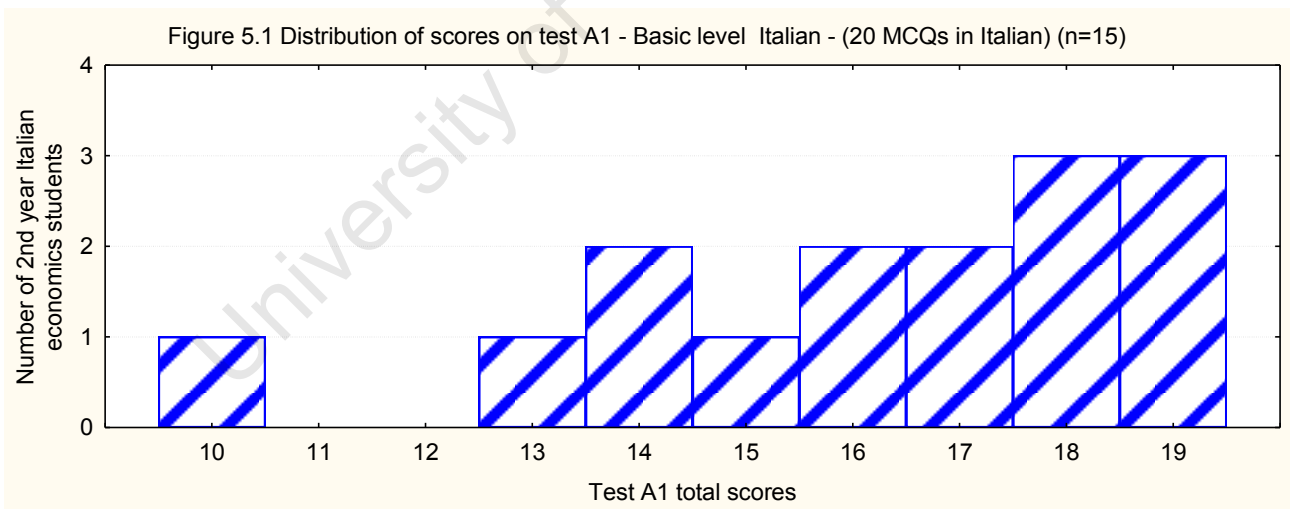
²³ Descriptive statistics are calculated separately for each variable, and they provide such basic information as the [median](#), minimum and maximum values, different measures of variation, as well as data about the [shape of the distribution](#) of the variable. The *mean*, i.e., the arithmetic average obtained by adding all the scores together and dividing by the number of scores, and the *median*, or mid-value within an ordered set of values are standard informative measures of the "central tendency" of a variable. The *standard deviation* is a commonly used measure of variation across measurements on a variable obtained from a single sample (Statistica 2006).

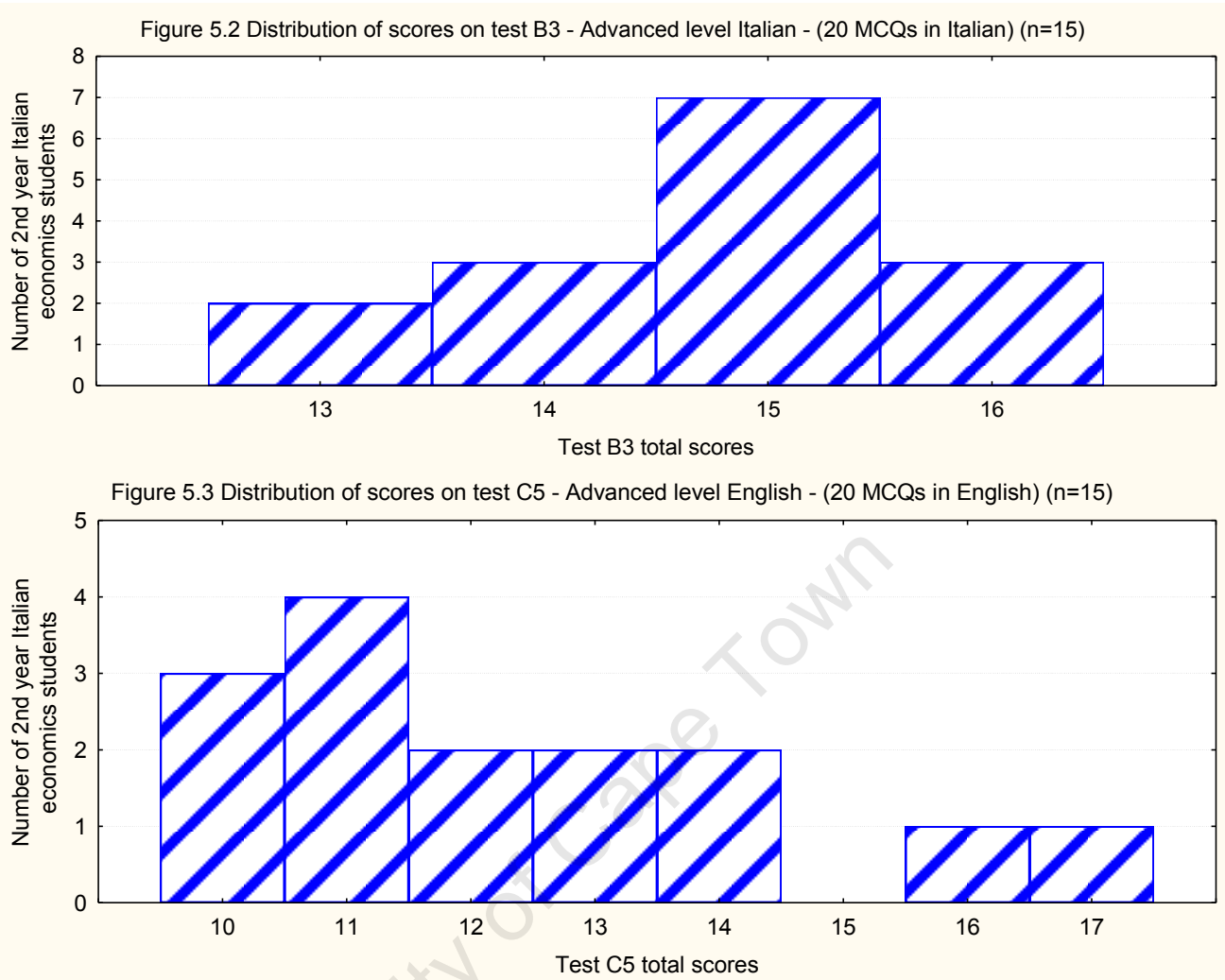
²⁴ Median is the central value when all scores are arranged in order of size. It is also referred to as the 50th percentile, i.e. it has 50 per cent of the scores below it, and 50 per cent above it.

indicate that the second year Italian economics subjects chose up to a maximum of 19 correct answers out of the 20 MCQs included in the test, as Figure 5.1 shows.

Table 5.1 Descriptive data by responses to tests A1, A2, B3, B4, C5 and C6 (n=15)

	Valid n subjects	Mean achievement Score	Minimum score	Maximum score	Standard Deviation	Mean achievement percentage score
test A1	15	16.20	10	19	2.60	81.0%
test A2	15	3.07	1	4	0.96	76.9%
test B3	15	14.73	13	16	0.96	73.7%
test B4	15	2.27	1	4	0.80	56.8%
test C5	15	12.33	10	17	2.16	61.7%
test C6	15	2.93	2	4	0.88	73.3%





Test B3

By contrast, the scores for test B3 ($m_3=14.73$), which related to an advanced level Italian economics text (the translation of excerpt C), were lower than those on tests A1. This is clearly represented by the distribution of scores in Figure 5.2 which indicates that typically about 15 questions out of 20 were answered correctly.

Test C5

The variance in reading performance of the subjects widened in the case of the median scores achieved on test C5 ($m_5= 12.33$), that is, for the 20 structural MCQs on the original English version of test B3 ($m_3=14.73$), (§Table 5.2). The distribution of scores on test C5 shows that only 10 questions out of 20 were answered correctly, as represented above in Figure 5.3.

The findings suggest that, although test C5 was administered to the subjects fifteen days after they had been tested on excerpt B3, they did not seem to have been helped by the possibility of a transfer of knowledge from their native language to English, and vice versa, while deriving meaning in the text.

The findings thus indicate that test B3, the Advanced level Italian test, was perceived as significantly more difficult than test A1 (the Basic level Italian test) with significantly lower performance scores than test A1.

Table 5.2 Overall total scores differences on tests A1, B3, C5

	10	11	12	13	14	15	16	17	18	19	20
A1	1	0	0	1	2	1	2	2	3	3	0
B3	0	0	0	2	3	7	3	0	0	0	0
C5	3	4	2	2	2	0	1	1	0	0	0

Table 5.2 above summarises the total scores on all twenty structural MCQs in the three tests A1, B3 and C5 administered to the n=15 human subjects of the pilot study. The table, therefore, provides an overall view of variance in reading performance of the subjects in the various tests administered to them.

Test A2

From a comparison of the histograms in Figures 5.4, 5.5, and 5.6, a high median ($m_2=3.07$) was recorded also on Test A2, that is, on the four informational MCQs in Basic Italian included in excerpt A. Again, the representation of the distribution of scores on Test A2 clearly indicated a negative skew²⁵, i.e., that frequently three questions out of four were answered correctly, as can be clearly seen in Figure 5.4, Table 5.1 and Table 5.2.

²⁵ *Skewness* measures the deviation of the distribution from symmetry. If the skewness is clearly different from 0, then that distribution is [asymmetrical](#), while normal distributions are perfectly [symmetrical](#). Specifically, if you split the distribution in half at its [mean](#) or [median](#) – the central value when all scores are arranged in order of size – i.e. it has 50% of the scores below it and 50% above it), then the distribution of values on the two sides of this central point would not be the same (i.e., not symmetrical) and the distribution would be considered "skewed" (Statistica 2006). *Negative* skew suggests that the majority of extreme observed values are less than the mean; *positive* skew that the majority of the extreme observed values are above the mean. A simple indication of this can be obtained by comparing the mean and the median values. If the median is less than the mean this suggests that over 50% of the values are below the mean, hence to compensate this the right hand or upper tail of the distribution must extend further – indicating a positive skew (Robson 2002).

Test B4

Moreover, the median score obtained for the four MCQs comprising the Advanced level Italian test B4 ($m_4=2.27$) corresponded to a slightly positive skew, since the median was lower than the one on the Basic level Italian test A2 ($m_2= 3.07$), as shown in Figure 5.5, Tables 5.1 and 5.2 above. In particular, unlike Figure 5.4, where the highest bar was on point 3, the shift in Figure 5.5 was to a score of 2.

Test C6

The median scores for test C6 in English ($m_6=2.93$) were, by converse, slightly higher than those attained for test B4 ($m_4=2.27$) – the translated Advanced level Italian version of C6. The distribution of the total scores on test C6 ranged from 2 to 4, as represented in the above Figure 5.6.

From the comparison of the histograms in Figures 5.4, 5.5 and 5.6, above, the four informational MCQ items comprising test B4 ($m_4=2.27$) (Fig. 5.4) presented a significantly more difficult test of achievement performance than the four informational MCQ items that constituted test A2. Furthermore, test B4 was significantly more difficult than test C6 ($m_6=2.93$) as the median score indicates.

A summary of the distribution of the total scores on the four informational MCQs in tests A2, B4 and C6 administered to the $n=15$ subjects of the pilot study is provided in Table 5.3 below:

Figure 5.4 Distribution of scores on test A2 - Basic level Italian - (4 MCQs in Italian) (n=15)

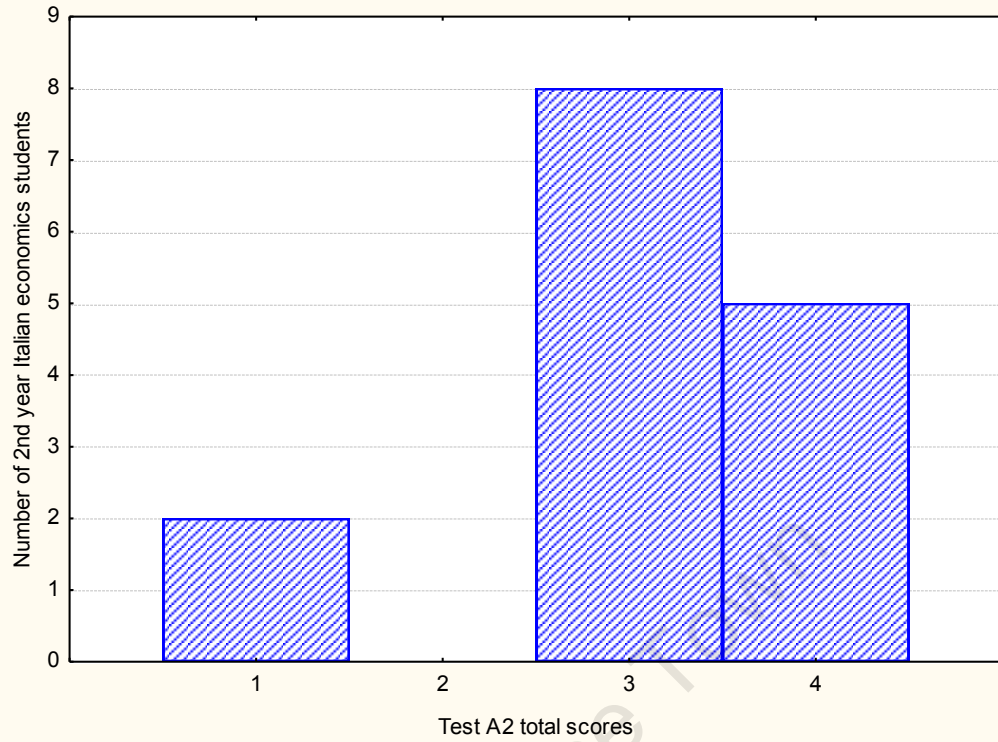
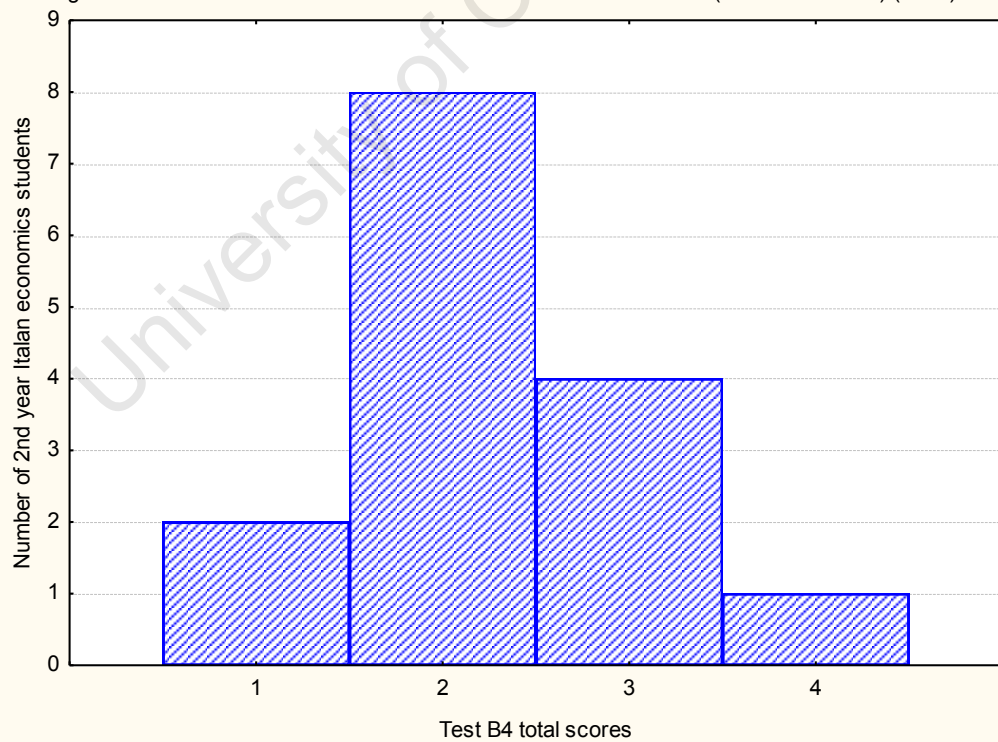


Figure 5.5 Distribution of scores on test B4 - Advanced level Italian - (4 MCQs in Italian) (n=15)



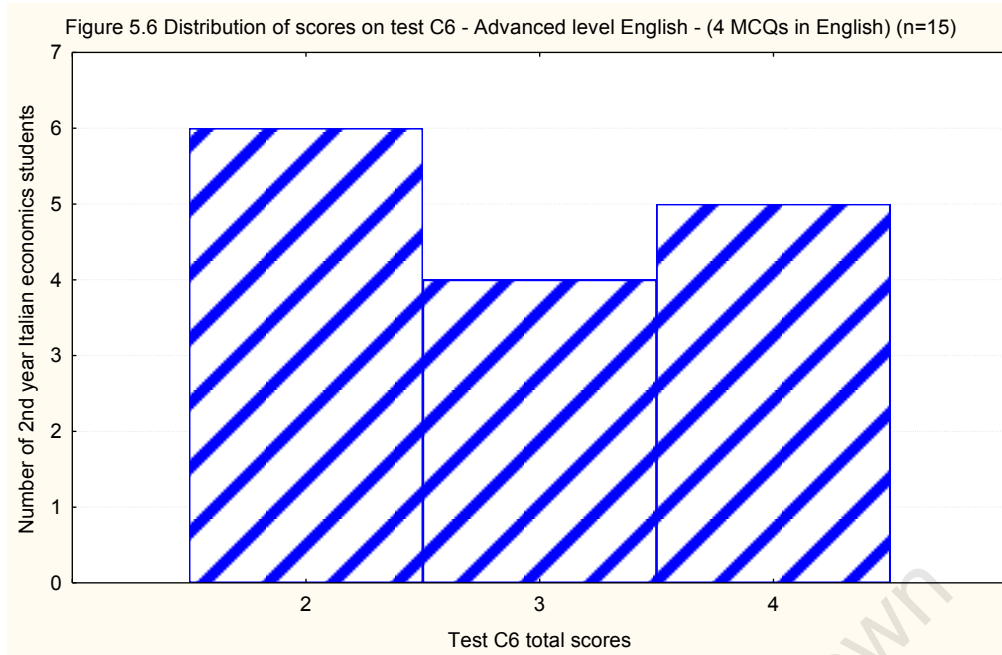


Table 5.3 Overall total scores differences on tests A1, B3, C5

	0	1	2	3	4
A2	0	2	0	8	5
B4	0	2	8	4	1
C6	0	0	6	4	5

Table 5.3 shows that the subjects differed in scoring on the four informational MCQ items of tests B4 and C6 as they did in the first parts of tests B and C. It is important to remember that the Italian translated version of the English excerpt had already been administered to the subjects two weeks earlier, so the difference in scores may suggest that the subjects did not fully recognise the concepts they had read a few days earlier in Italian and/or that they were only guessing the correct answers to the four informational questions in Italian and/or English.

5.3 Main study. Research instruments: Genre reading proficiency

As mentioned in the pilot study, by examining the scores relative to all 24 items in each test, I could achieve a clear overview of the items on which the human subjects attained lower achievement. In addition, by verifying directly in the text how that particular function or content word was positioned and how it related to the co-text, I could link specific negative/positive scores to the relative items in the text.

This is an important step which allowed me to gain further understanding as to what extent the Italian subjects referred to the textual/grammatical structure and recognised the features of *specific domain* language whilst construing/deriving *meaning*.

On the basis of the data emerging in the pilot study, I therefore considered it essential to extend my assessments to verify if the same human subjects varied their scores when they read texts of different genres (§Ch.4).

Indeed, by assessing the subjects' reading proficiency across different genres, I could determine if:

- (i) a variation in scores occurred;
- (ii) there were relationships between reading proficiency and genre;
- (iii) bidirectional Italian↔English conceptual transfer occurred whilst construing/deriving meaning in L1 and EFL.

5.3.1. Main study. Text D: generic English news article

The n=69 subjects present in my classes first received an original news article in 'generic' English: *In China, tide may be turning against polluters* (1044 words) – Text D reproduced below in Chapter 5, section 5.5.1 and in Appendix 4 – published on the International Herald Tribune. The article focussed on the growing success on the part of the Chinese in forcing the authorities to improve environmental conditions by decreasing the levels of industrial pollution in China.

The text was chosen because most young Italians are interested and informed on pollution and environmental issues. I therefore considered this type of text to be a useful research instrument to verify the subjects' reading proficiency because it required them to refer to their world knowledge.

As stated in previous chapters, reading is an active and constructive process, which I think emphasises the active nature of transfer itself. Thus, a text is not conceived as just "given" and passively received. On the contrary, the subjects, by using their prior knowledge and other available resources, such as cognitive and meta-cognitive (or self-regulatory) skills, can modify their perception of the topic (in this specific case the environmental pollution issue). Furthermore, an active control of reading, on the part of the subjects, implies affective and motivational qualities, in addition to their cognitive skills implemented in the transfer situation.

The structure of the text/test followed the same division as in the previous three pilot study excerpts, A, B, C, i.e., 20 MCQs on grammar, relational words, lexical items – test D1; four MCQs on factual and inferential comprehension questions – test D2. The latter were created according to the criteria already described in section 5.2 and in the Methodology chapter.

The data yielded information on the subjects': a) capacity to link grammatical/textual structure to meaning derivation; b) proficiency in reading a journalistic genre. The subjects who provided complete sets of data were n=69 (as recorded in Table 5.4).

5.3.2. Main Study. Text E: English economics textbook excerpt

The second text, the excerpt *The case for privatisation* (1193 words) – Text E reproduced below in Chapter 5, section 5.5.1 and in Appendix 5 – was extracted from an English university economics textbook (Sloman 2000).

It was a text focussing, on the one hand, on the beneficial effects of privatisation including its organisational culture, product, factor and capital markets, its capacity to raise investment capital and lower prices. On the other, it highlighted the limited activity of state-owned organisations.

The text was chosen because it was part of the core concepts studied during the first year course in Political Economics: Micro and Macro Economics and because it was a sample of textbook genre, familiar to the subjects. However, unlike text B, the Italian published version of its original in English, tested in the Pilot Study, text E was not a translation but referred to a core economics concept in the textbook.

As with D, this text E was divided into two parts and included the same number and type of MCQs. The first set of twenty questions corresponded to test E3, whereas the subsequent 4 questions corresponded to test E4, as the following Table 5.4 shows.

By administering this text, my aim was to verify if a transfer between the subjects' specific-domain conceptual knowledge in Italian texts and their comprehension of corresponding concepts in a text in English occurred. Indeed, once again, the purpose was to investigate the subjects':

- (i) capacity to link grammatical and structural components to meaning derivation;

- (ii) bilateral English↔Italian specific-domain conceptual transfer;
- (iii) genre reading competence and/or proficiency.

The number of students attending varied from week to week, so the subjects who provided complete sets of data for this text/test were $n=73$, as shown in Table 5.4.

5.3.3. Main Study. Text F: Italian economics textbook excerpt

The third excerpt, *Comportamento monopolistico* (1197 words) – Text F reproduced below in Chapter 5, section 5.5.1 and in Appendix 6 – was extracted from an Italian university economics textbook (Blanchard and Fischer 1999). The text defined the concept of monopoly and discussed how companies differentiate their products in the attempt to increase their market power and the relationship between demand, production and price.

The text was chosen because its content was included in the first year course of Political Economics: Micro and Macro Economics and because it is a sample of textbook genre. In addition, it was not the Italian version of text E, as B and C were (§Ch.4 and Ch.5: 5.2), but it was similar in content, in that it refers to a core economic concept related to monopolies.

Text F was divided into two, as previously D and E, and it followed their identical question and answer type criteria: test F5 and test F6. The aim of the assessment was to verify:

- (i) if the subjects referred to their specific-domain conceptual knowledge learnt in Italian;
- (ii) the subjects' capacity to use grammatical and structural components in construing meaning in their native language.

Only $n=36$ subjects provided complete sets of data for test F5 and F6, as recorded in Table 5.4 below.

5.3.4. Main Study. Text G: Business news article

The fourth text, *Rate Hikes a Concern* (139 words) – Text G reproduced below in Chapter 5, section 5.5.1 and in Appendix 7 – is an online business news article in English (www.businessnews.com). It discussed the move of a Greek bank to increase consumer, mortgage and credit card rates. Such a move was seen to actually hide the higher operating costs

of Greek banks compared to the Eurozone ones, and the banks' lack of competitiveness. The article was chosen as a sample of the business journalistic text type.

As in the previous texts, G was divided into two parts: test G7 and test G8, and it followed their identical question-type and answer-type criteria. The aim of the analysis was to verify:

- (i) if the subjects referred to their specific-domain knowledge whilst reading in English;
- (ii) if they had the capacity to use structural components for deriving meaning;
- (iii) whether a bilateral English↔Italian specific-domain conceptual transfer took place;
- (iv) whether there was a variance in their reading proficiency of a different genre.

The subjects who provided complete sets of data for tests G7 and G8 were n=33, as shown in Table 5.4 below.

5.3.5 Main study – tests D1, D2, E3, E4, F5, F6, G7 and G8. Quantitative analysis

(a) Descriptive statistics

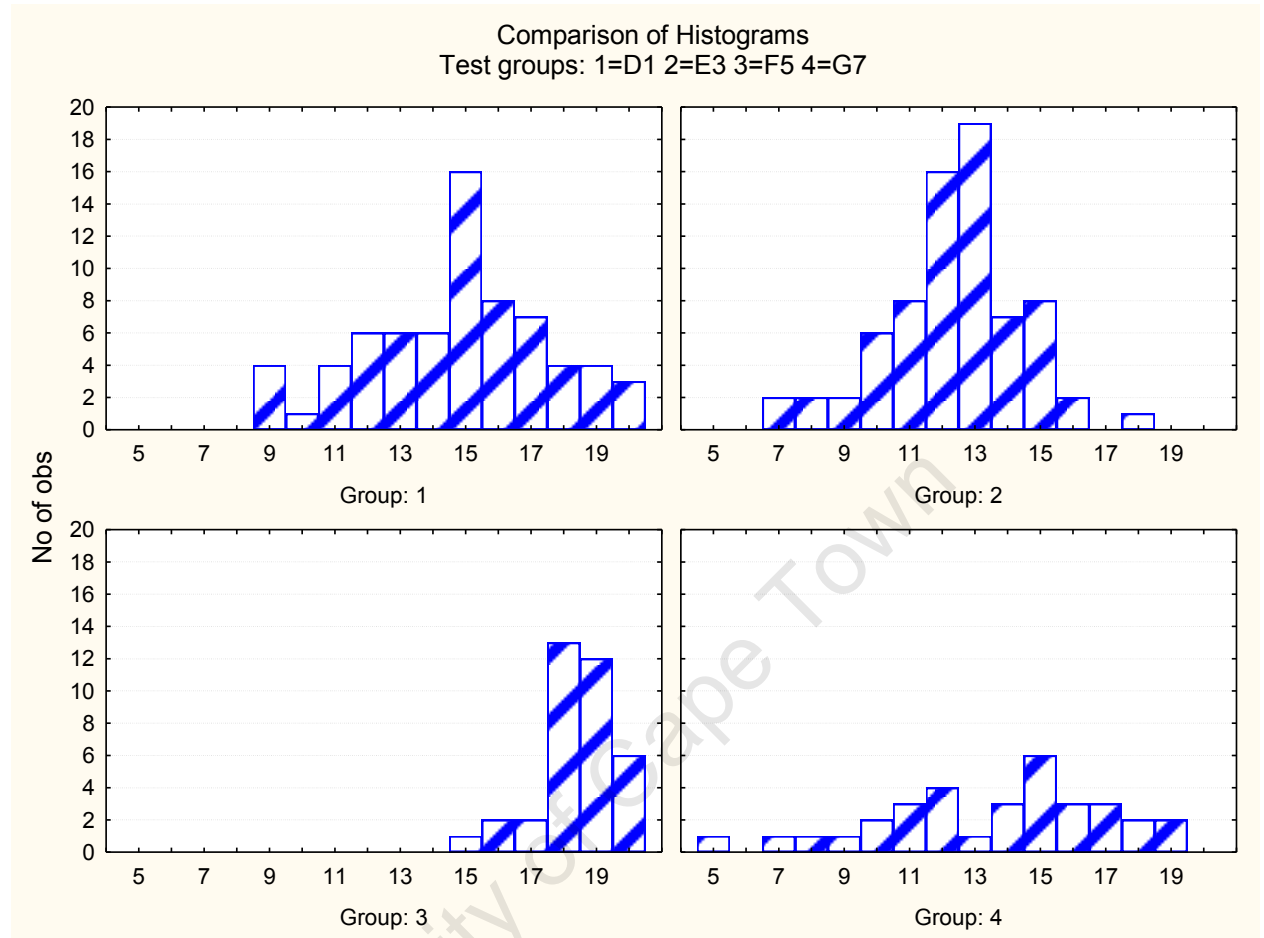
In order to analyse quantitatively the human subjects' responses to the tests D1, D2, E3, E4, F5, F6, G7 and G8, by following the same analytical procedure implemented for tests A1, A2, B3, B4, C5 and C6 of the pilot study, each correct answer to each question scored 1, whereas a wrong answer to each question scored 0. The maximum possible score on the 20 questions in the first part of each test – D1, E3, F5 and G7 was 20. The maximum possible score on the second parts – D2, E4, F6 and G8 of the reading comprehension assessments was 4.

Table 5.4 presents the descriptive data generated by the responses to the four reading assessments for the sample of students of the main study with intact scores (valid n) throughout the period of testing (i.e. no absentees).

Table 5.4 Descriptive data for the responses to tests D1, D2, E3, E4, F5, F6, G7 and G8

	Valid n subjects	Median Score	Minimum Score	Maximum score	Standard deviation	Median achievement percentage score
test D1	69	14.77	9	20	2.78	73.9%
test D2	69	3.65	1	4	0.74	91.3%
test E3	73	12.37	7	18	2.07	61.9%
test E4	73	2.45	0	4	0.85	61.3%
test F5	36	18.42	15	20	1.18	92.1%
test F6	36	2.53	2	4	0.56	63.3%
test G7	33	13.58	5	19	3.48	67.9%
test G8	33	2.27	1	4	1.04	56.8%

The median scores for test groups 1=D1, 2= E3, 3=F5, and 5=G7 are depicted below in Figure 5.7 below:

Figure 5.7 Comparison of Histograms for test groups 1=D1, 2=E3, 3=F5, 4=G7**Test D1**

The mean scores for test 1=D1 ($m_{D1}=14.77$), included in text D – generic English journalistic text – were the highest attained among the twenty MCQs in English tests 2=E3 (mean $E3=12.37$) and 4=G7 (mean $G7=13.58$), as shown in Table 5.7 above. However, the distribution of the total scores on the grammatical and structural twenty MCQs presented a negative skew. In particular, the second year Italian economics subjects exhibited a mode²⁶ of 15 correct answers out of the twenty MCQs in the text. This is shown in Group 1 above.

E3

By contrast, the scores for test 2=E3 (median $E3=12.37$), which related to the 20 grammatical and structural MCQs on an economics textbook excerpt in English, were lower than those on test 1=D1 ($m_{D1}=14.77$), the generic English journalistic text. This is represented by the distribution of scores in Group 2 which indicated that most frequently 12 or 13 structural MCQs out of 20 were answered correctly, resulting in a more positive skew compared to the score distribution

²⁶ The mode is statistically the most commonly occurring score.

obtained for test 1=D1 in Group 1. The findings further underline a significant performance difference in deriving meaning in the grammatical and structural tests E3 and G7. Furthermore, the results underline a huge performance gap in deriving/construing meaning at a grammatical and structural level in tests E3 and F5 on the part of the subjects, as depicted in Figure 5.7 above.

Test F5

The variance in reading performance of the second year Italian economics subjects in the main study widened further, in the case of the median scores achieved on test 3=F5 ($m_{F5}=18.42$) for the twenty grammatical and structural MCQs in Italian on the Italian economics textbook excerpt. The distribution of scores on test 3=F5 was skewed negatively with a mode of 18 questions out of 20 answered correctly, as shown in Group 3 above, although almost as many scored 19 as well. This finding was to be expected, since the twenty structural MCQ items in excerpt F were presented in Italian.

Test G7

The scores on test 4=G7 ($m_{G7}=13.58$) – the twenty grammatical and structural MCQs in the English business news article – tended to be lower than the scores on the twenty structural MCQs in test 1=D1 ($m_{D1}=14.77$) – the generic English news article. The MCQ items in the Business article required mainly the knowledge of English grammar and text structure, with only a certain degree of conceptual knowledge transfer between Italian and English, and vice versa. However, as can be seen in Figure 5.7 Group 4, a bidirectional distribution occurred for the scores on test 4=G7 indicating the presence in the class of two clearly discrete groups of subjects – identifiable under-achievers and identifiable superior achievers, with only one subject in the middle.

Table 5.5 below summarises the combined distribution of the total scores on all twenty grammatical and structural MCQs in the four tests 1=D1, 2=E3, 3=F5 and 4=G7 administered to a varying number of human subjects in the main study.

Table 5.5 Overall total scores differences on tests 1=D1, 2=E3, 3=F5, 4=G7

	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
D1			0	0	4	1	4	6	6	6	16	8	7	4	4	3	n=69
E3			2	2	2	6	8	16	19	7	8	2	0	1	0	0	n=73
F5										0	1	6	2	13	12	6	n=36
G7	1	1	1	1	1	2	3	4	1	3	6	3	3	2	2	0	n=33

Furthermore, Figure 5.8 shows a comparison of Boxplots illustrating the correlation in the variance of the subjects' reading performance in the various groups of tests 1=D1, 2=E3, 3=F5 and 4=G7 administered to them over an approximate period of three months.

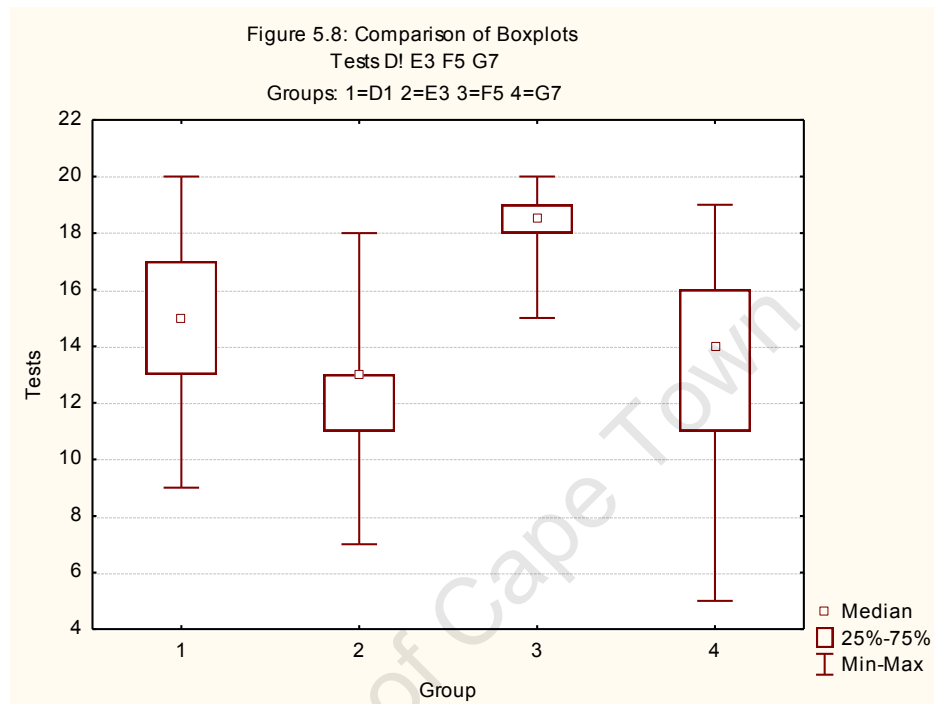


Figure 5.8 shows that test D1, E3 and G7 are strongly related. This means that the subjects who scored high or low on one test will do so in the others. Thus, there is a correlation between the news articles in English and the Italian textbook excerpt. By contrast, the two box plots representing clustered data for tests E3 and F5 – that is between the English and Italian versions of economics textbooks excerpts – indicate a significant performance difference between the two grammatical and structural reading tests on the same excerpts of tests E3 and F5.

These relations are further illustrated in detail in the Kendall Tau correlations Table 5.6 and Figure 5.9 below. The Kendall coefficient of concordance is a nonparametric²⁷ statistical test suitable for very small samples, as the one in this case study. The Kendall coefficient of concordance is suitable as a measure of correlation between two sets of ranks, in which circumstance it is called Kendall's tau.

²⁷ Nonparametric tests focus on the ranking of scores and on the difference between the medians (Siegel and Castellan, Jr. 1988).

Table 5.9 Kendall Tau: Marked Correlations
tests D1, E3, F5, G7

Kendall Tau: Marked correlations are significant at $p < .05000$				
	testD1	testE3	testF5	testG7
testD1	1.00	0.34*	0.09	0.29*
testE3	0.34*	1.00	-0.04	0.17
testF5	0.09	-0.04	1.00	0.17
testG7	0.29*	0.17	0.17	1.00

Figure 5.9 Correlations: D1, E3, F5, G7

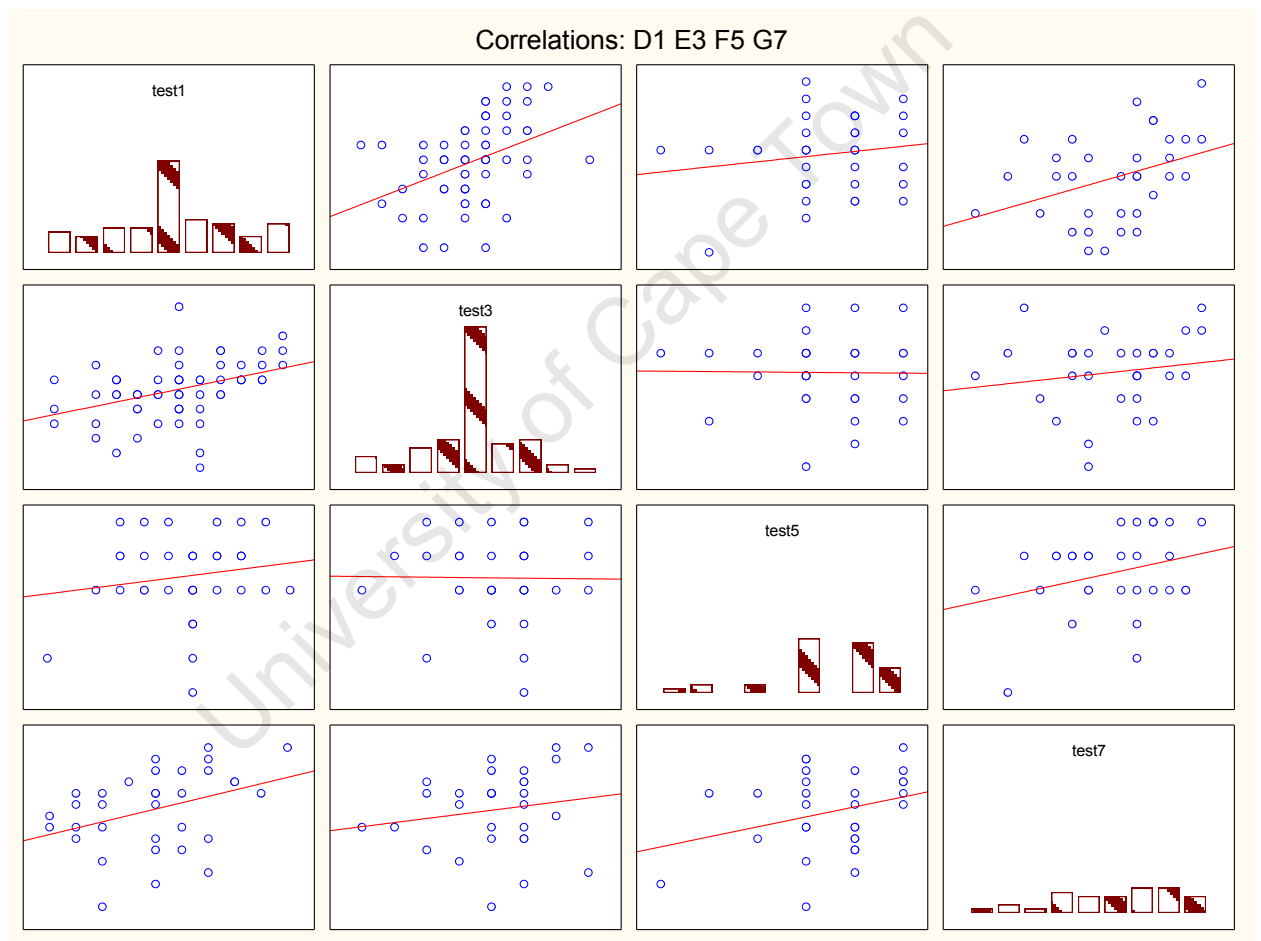


Table 5.6 and Figure 5.9 show the measure of the strength of pairwise relationships among the above four groups of tests D1 (generic English news article), E3 (English economics textbook excerpt), F5 (Italian economics textbook excerpt) and G7 (English Business news article). As in Figure 5.9 the correlation between test D1, E3 and G7 is depicted in Figure 5.6.

In order to test the hypothesis that the related sample values could have come from tests of equal difficulty, I consider only those who did all the relevant tests, with respect to the mean rankings, using the Friedman two-way of ranks variance analysis. It provides an overall test of whether the values within the data vary as a function of the conditions under which they were observed (Siegel and Castellan, Jr. 1988).

Table 5.7 Friedman Anova: tests D1, E3, F5, G7

Friedman ANOVA Chi Sqr. (N = 27, df = 3) = 52.41313 p = .00000				
	Average - Rank	Sum of – Ranks	Mean	Std.Dev.
testD1	2.50	67.50	14.88	2.17
testE3	1.48	40.00	12.03	1.65
testF5	3.88*	105.00	18.44	1.25
testG7	2.12	57.50	13.33	3.56

Table 5.8 Friedman Anova: tests D1, E3, G7

Friedman ANOVA Chi Sqr. (N = 30, df = 2) = 13.07965 p = .00144				
	Average - Rank	Sum of – Ranks	Mean	Std.Dev.
testD1	2.38	71.50	14.86	2.40
testE3	1.50*	45.00	12.16	1.64
testG7	2.11	63.50	13.56	3.53

Table 5.9 Friedman Anova: tests D1, G7

Friedman ANOVA Chi Sqr. (N = 33, df = 1) = .8620690 p = .35316				
	Average - Rank	Sum of – Ranks	Mean	Std.Dev.
testD1	1.57	52.00	14.93	2.31
testG7	1.42	47.00	13.57	3.48

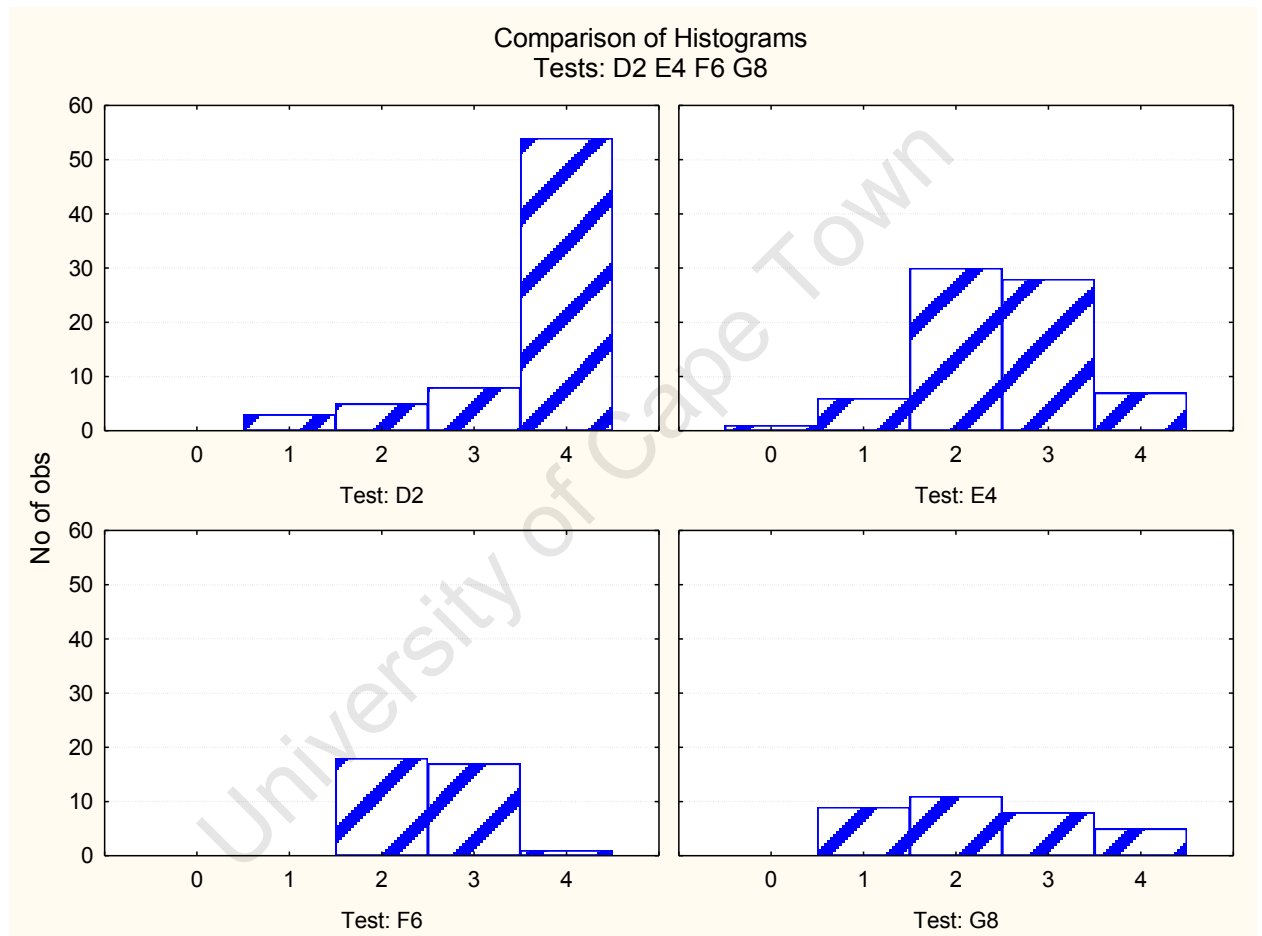
As Table 5.7 indicates at least test F5 (20 grammatical and structural MCQs on an Italian economics textbook excerpt) has a different average rank from the other tests. In Figure 5.7 Group 3 test F5 appeared as the easiest for the twenty grammatical and structural MCQs among D1, E3 and G7.

In Table 5.8, above, test E3 (20 grammatical and structural MCQs on an English economics textbooks excerpt) appears located apart from tests D1 and G7 and it is therefore taken as

different from the remaining (2) tests. It is therefore deleted from the next Friedman Anova test. The final analysis considering only the subjects who did tests D1 and G7 provides evidence that these tests are not different, in Table 5.9.

Figure 5.10, below, shows a comparison of histograms for tests D2, E4, F6 and G8.

Figure 5.10 Comparison of Histograms for tests D2, E4, F6, G8



Test D2

The highest median ($m_{D2}=3.65$) was recorded on test D2, that is, on the four informational MCQs in the generic English journalistic text, among all the tests in English – E4 ($m_{E4}=2.45$) and G8 ($m_{G8}=2.27$). The representation of the distribution of total scores on test D2 clearly indicates a negative skew, i.e., that most frequently four questions out of four were answered correctly, as can be seen in Figure 5.10 above.

Test E4

Furthermore, the performance scores obtained for the four informational MCQs on test E4 ($m_{E4}=2.45$) – the English economics textbook excerpt – tended to be lower than those on the generic English news article D2 ($m_{D2}=3.65$). Unlike test D2, where the mode was a score of 4, the shift in test E4 was to a modal score of 2, although almost as many subjects scored 3, Figure 5.10.

Test F6

The median performance scores obtained for the four informational MCQs in Italian on test F6 ($m_{F6}=2.53$) – the Italian economics textbook excerpt - were higher than the median on test E4 ($m_{E4}=2.45$) – the English economics textbook excerpt, as shown in Figure 5.10. However, the mode in F6 as well as in E4 was a score of 2, although almost as many subjects scored 3.

Test G8

Finally, the performance scores obtained for the four informational MCQs on test G8 ($m_{G8}=2.27$) – the business journalistic text in English – were lower than the performance scores on test D2 ($m_{D2}=3.65$). The representation of the distribution of scores on test D2 clearly indicated a negative skew, i.e., that frequently four questions out of four were answered correctly, as can be seen in Figure 5.10. By contrast, the distribution of scores on test G8 tended to be more predominant over the score range 1 to 3.

Table 5.10 below illustrates the overall total score patterns on the four informational MCQs in tests D2, E4, F6 and G8 administered to the subjects of the main study, mentioned above, in the same period of time.

**Table 5.10 Overall total score differences
on tests D2, E4, F6, G8**

	0	1	2	3	4	
D2		2	5	8	54	n=69
E4	1	7	30	28	7	n=73
F6			18	17	1	n=36
G8		9	11	8	5	n=33

The data confirm that the subjects' major difficulty in choosing the correct answer for the four informational MCQ items was in test E4, which required deriving meaning in a domain-specific in English, rather than in D2, the generic English article. Moreover, the four informational

MCQs in test D2 presented a significantly easier test of achievement performance than the four informational MCQs in test G8. By contrast, the scores reveal no performance gap in the derivation of meaning at an informational level between tests E4 and G8, although the tests belonged to different genres.

Table 5.11 Friedman Anova for tests D2, E4, F6, G8

Friedman ANOVA Chi Sqr. (N = 27, df = 3) = 35.60870 p = .00000				
	Average – Rank	Sum of - Ranks	Mean	Std.Dev.
testD2	3.66*	99.00	3.77	0.69
testE4	2.29	62.00	2.51	0.975
testF6	2.07	56.00	2.40	0.57
testG8	1.96	53.00	2.25	1.05

Table 5.12 Friedman Anova for tests E4, F6, G8

Friedman ANOVA Chi Sqr. (N = 27, df = 2) = 2.153846 p = .34064				
	Average – Rank	Sum of - Ranks	Mean	Std.Dev.
testE4	2.18	59.00	2.51	0.97
testF6	1.96	53.00	2.40	0.57
testG8	1.85	50.00	2.25	1.05

If the Friedman Anova analysis is applied to tests D2, E4, F6 and G8, we can see in Table 5.11 that test D2 provides the highest average rank difference from tests E4, F6 and G8. If we therefore eliminate this variable and examine the others, in Table 5.12, there is insufficient statistical evidence for distinction among the other tests – E4, F6 and G8.

5.4 Overall review

a) Pilot study

The mean scores, resulting from the tests included in the pilot study, indicated a variance in the reading performance of the 2nd year Italian economics subjects, at the University of Florence, on two economics texts in different levels of Italian.

Specifically, the reading performance mean scores were significantly lower on the Advanced level Italian economics excerpt than those attained on the Basic level Italian economics excerpt. Such a finding was to a degree predictable, but the variance in reading performance signalled that a number of subjects were below tertiary level language expectations. It is essential to bear in mind that:

- (iv) the subjects were not only reading in their primary language, but also at a economics textbooks;
- (v) the subjects were assessed in both their L1 and in EFL for an in-depth study;
- (vi) I am a fluent compound bilingual Italian-English speaker, fully competent to process and interpret the data in both languages which prevents this study from being biased by monolinguality, as mentioned in Ch1.

It therefore might be useful to consider the subjects' reading comprehension difficulties within a broader scenario wherein low reading comprehension standards in Italian might derive from poor educational standards, attained at the end of secondary schools, or from the lack of any selective access to the Italian universities. These, as already mentioned in Ch. 3, on the basis of an anti-discriminatory policy implemented in the national education system, are open to whoever passes their final secondary school examination, regardless of the marks attained and the type of secondary school attended. In addition to the different readability levels related to a linguistic factor, the findings also underline a difficulty in referring to economics concepts learnt in a mandatory first year Economics course.

The variance in reading performance/proficiency furthermore increased when the subjects read in English. Mean scores dropped when the subjects read the English version (C) of the Advanced level Italian excerpt (B). The scores were lower on the grammatical and structural MCQs in English than in Italian, although the same text had been previously administered in Italian. The findings show that the subjects did not seem to possess sufficient knowledge and/or awareness of the linkage between the various grammatical and structural parts in the excerpt in English in order to derive meaning. The mean scores, by contrast, on the four informational MCQs were higher on the English version (C) than on the Italian one (B), but this might derive from the comprehension questions that were too easy or from simple guessing.

These scoring variations, however, might indicate that the subjects did not refer to their economics concepts learnt in Italian, whilst reading the excerpt in English. This is an issue I think could be related to their learning processes, that is, to the way the economics concepts were taught and/or learnt in UNIFI-Faculty of Economics.

In sum, the pilot study findings highlighted that reading performance/proficiency dropped when the subjects passed from a lower to an advanced language level text in their primary language: Italian. But their capacity to derive meaning dropped further when they read the same Italian excerpt in English two weeks later, although the mean scores on the informational tests were higher on the English version (C) than on the Italian one (B).

b) Main study

Following the pilot study procedures, the subjects were successively tested on different genres and text types, in the main study. The findings underlined not only an overall variance in the reading proficiency/performance mean scores, but also that these were highest on the generic English news article (D) and lowest on the English textbook excerpt (E). Specifically, the scoring difference was linked:

- (i) to the two different genres – the news and the pedagogical;
- (ii) to different text types within the news genre: the generic English news article and the business news story.

Moreover, the mean score analysis for the English economics textbook excerpt and the corresponding excerpt in Italian (F) underscored and confirmed the difficulty encountered by the subjects to connect the grammatical and structural components to derive meaning from the text in English.

Unlike the pilot study, the scores on the informational tests were equally low for the English and the Italian textbook excerpt thus suggesting that the subjects did not perform a successful bidirectional Italian↔English conceptual transfer whilst reading a domain-specific text in English or in Italian.

As to the high median scores for the Generic English article (text D), these were to be expected, since the subjects had to refer to their generic world knowledge. In addition, the article, although following the typical ‘inverted pyramidal structure’, was narrated in a less formal and complex language than the Business news story (G). The latter required the subjects to possess both specific domain knowledge and awareness of the complex syntactic features which characterise the business article genre.

The subjects’ difficulty to link the various parts of the text to gain understanding was reflected by the low scores on the grammatical and structural test as well as on the informational test. This denotes, once again, a lack in their capacity to refer and apply their economic/business conceptual knowledge possessed in Italian to a text in English and to link the various part of the text to derive meaning.

Most importantly, the variance in scores between the grammatical and structural English test and the Italian corresponding one (E and F) seemed to confirm the drop in the mean scores when the subjects passed from the Italian (B) to the English version (C), in the pilot study. Interestingly, the subjects answered similarly on both the English and Italian informational tests (E4 and F6) but the scores were lower than those for the informational MCQs on the generic English news article.

The subjects hence showed a scoring variance within the same pedagogical genre, but from comparing the two genres, it is on the pedagogical/textbook genre that the subjects chose a higher number of wrong answers. Such results suggest the subjects did not transfer their economics conceptual knowledge whilst reading a domain-specific text in English.

However, as mentioned in the pilot study, low scoring on the domain-specific texts in English should be viewed within a framework including the various methodological and pedagogical issues in the language curricula of the EFL course at Economics, the contextual factors which can affect the possibility or impossibility to expand and apply one’s conceptual knowledge to new concepts, and/or the subjects’ attitude towards English as a foreign language.

5.5 Descriptive statistics: item difficulties

Following the analyses of the mean performance scores and null hypotheses on all the tests administered to the subjects in the pilot and main studies, I conducted a descriptive analysis on the eight tests of the main study and on two tests of the pilot study.

a) Item difficulties: main study

The purpose of this analysis was to search the means in order to identify the most difficult/intermediate/easy items in tests D1, D2, E3, E4, F5, F6, G7 and G8 (main study) and in tests B3, B4, C5 and C6 (pilot study).

This allowed me, on the basis of the data in Table 5.13 below, firstly, to identify the most difficult/intermediate/easy items in each text/excerpt. Secondly, by singling out the items, to explore and hypothesise by analysing each text/excerpt within a Hallidayian and Geeian framework, how the subjects drew on the items to derive or not to derive meaning at a discourse level in the texts/excerpts. In other words, how they used or did not use appropriately the semantic resources in linking, for instance, a sentence with what had gone before in the text. In any connected passage of discourse the reader must refer anaphorically, cataphorically or exophorically to something that has been mentioned and which locates a reference between the two to create a cohesive semantic unit.

The item difficulty data were also coupled by a breakdown analysis of the answers for each test. This allowed me to spot the exact answers chosen for each MCQ by the subjects.

In order to determine a taxonomy of the item difficulty values, items with means of ≥ 0.85 were considered easy (Ebel 1972); items ≤ 0.40 ²⁸ were considered difficult, whereas the others were identified as intermediate values, as indicated by the means in red in Table 5.12 below.

²⁸ Ebel indicates 0.15 as a guideline for “very difficult”.

Table 5.13. Descriptive statistics: item difficulties. Main study

	Valid n Subjects	Mean	Std.dev.
D1Q1	69	0,75	0,43
D1Q2	69	0,94	0,24
D1Q3	69	0,72	0,45
D1Q4	69	0,88	0,32
D1Q5	69	0,52	0,50
D1Q6	69	0,75	0,43
D1Q7	69	0,80	0,41
D1Q8	69	0,62	0,49
D1Q9	69	0,77	0,43
D1Q10	69	0,91	0,28
D1Q11	69	0,59	0,49
D1Q12	69	0,93	0,26
D1Q13	67	0,57	0,50
D1Q14	66	0,33	0,48
D1Q15	69	0,75	0,43
D1Q16	67	0,69	0,47
D1Q17	68	0,59	0,50
D1Q18	68	0,84	0,37
D1Q19	68	0,91	0,29
D1Q20	69	0,97	0,17
D2Q2	68	0,91	0,29
D2Q1	69	0,99	0,12
D2Q3	68	0,91	0,29
D2Q4	68	0,88	0,32
E3Q1	73	0,96	0,20
E3Q2	72	0,69	0,46
E3Q3	73	0,92	0,28
E3Q4	73	0,79	0,41
E3Q5	73	0,45	0,50
E3Q6	72	0,43	0,50
E3Q7	73	0,95	0,23
E3Q8	73	0,48	0,50
E3Q9	73	0,36	0,48
E3Q10	73	0,71	0,46
E3Q11	72	0,18	0,39
E3Q12	73	0,67	0,47
E3Q13	73	0,88	0,33
E3Q14	73	0,47	0,50
E3Q15	73	0,45	0,50
E3Q16	73	0,27	0,45

E3Q17	73	0,75	0,43
E3Q18	73	0,45	0,50
E3Q19	73	0,89	0,31
E3Q20	73	0,63	0,49
E4Q1	73	0,74	0,44
E4Q2	73	0,42	0,50
E4Q3	73	0,82	0,39
E4Q4	73	0,47	0,50
F5Q1	36	0,97	0,17
F5Q2	36	0,89	0,32
F5Q3	36	1,00	0,00
F5Q4	36	1,00	0,00
F5Q5	36	0,97	0,17
F5Q6	36	1,00	0,00
F5Q7	36	0,92	0,28
F5Q8	36	0,47	0,51
F5Q9	36	0,81	0,40
F5Q10	36	0,92	0,28
F5Q11	36	1,00	0,00
F5Q12	36	0,97	0,17
F5Q13	36	1,00	0,00
F5Q14	36	1,00	0,00
F5Q15	36	1,00	0,00
F5Q16	36	1,00	0,00
F5Q17	36	1,00	0,00
F5Q18	36	1,00	0,00
F5Q19	36	1,00	0,00
F5Q20	36	0,50	0,51
F6Q1	36	0,89	0,32
F6Q2	36	0,47	0,51
F6Q3	36	0,17	0,38
F6Q4	36	1,00	0,00
G7Q1	33	0,79	0,42
G7Q2	32	0,22	0,42
G7Q3	33	0,82	0,39
G7Q4	33	0,48	0,51
G7Q5	33	0,67	0,48
G7Q6	33	0,91	0,29
G7Q7	32	0,72	0,46
G7Q8	33	0,85	0,36
G7Q9	33	0,58	0,50
G7Q10	33	0,82	0,39
G7Q11	33	0,52	0,51
G7Q12	33	0,85	0,36

G7Q13	33	0,85	0,36
G7Q14	33	0,64	0,49
G7Q15	33	0,85	0,36
G7Q16	33	0,48	0,51
G7Q17	33	0,88	0,33
G7Q18	33	0,48	0,51
G7Q19	33	0,82	0,39
G7Q20	33	0,39	0,50
G8Q1	33	0,30	0,47
G8Q2	33	0,64	0,49
G8Q3	33	0,52	0,51
G8Q4	33	0,82	0,39

The first text to be scrutinised was the generic English news article, which was the first to be administered in chronological order to the subjects during the main study (§Ch.4. Table 1).

Text D - generic English news article

Text D – *In China, tide may turn against polluters* – (§Appendix 4) – is a generic English news story article belonging to the news genre. It consists of a thesis (the first two paragraphs) and a series of Arguments (each paragraph following the first two) through which the journalist persuades his/her readers of his/her point of view on his thesis. The latter refers the growing awareness of the Chinese on health and environmental issues related to pollution and of their increasing protests to force authorities towards improvements:

IN CHINA, TIDE MAY BE TURNING AGAINST POLLUTERS

I. In the three years since he set up an environmental hotline, Wang Canfa has heard thousands of heartbreaking stories from people who say their health or livelihood has been imperilled by industrial pollution. The complaints come from victims all across China, but when Wang decides he can help, his response 1. A) seemed B) has seemed C) seems more typically American. “The first thing we do is send lawyers and reporters”, said Wang, director of the Beijing-based Centre for Legal Assistance to Pollution Victims.

II. The centre is one of hundreds of environmental nongovernmental organizations 2. A) which B) who C) whom have sprung up in China in recent years. The development reflects not only a 3. A) greater B) least C) smaller awareness about environmental issues on the part of the Chinese public, but also a greater willingness to challenge authorities and force improvements. And despite China’s image as a 4. A) dictatorship party single B) single party dictatorship C) party single dictatorship that frowns on civic activism and avoids public accountability, the victims sometimes succeed.

III. Hanging on the walls of Wang’s office in western Beijing are banners 5. A) who bear B) bore C) bearing inscriptions of thanks from those who received his help. One is from the residents of a neighbourhood in the northern port city of Tianjin who were plagued by a coal

heating plant operated by a government real estate developer. 6. A) Their B) Theirs C) They complaints were ignored, and when the company began building a second plant, the residents took matters into their hands, blockading the road to the new plant and shutting down 7. A) a B) the C) an construction work. Then Wang alerted the press and sent in his lawyers. **They determined that the company** 8. A) violating B) had violated C) has violated regulations by allowing more than five years to pass between getting approval for the new plant and building 9. A) it B) its C) them. The company paid 1,000 yuan in compensation to each 100 of the residents, and built a new bicycle shelter for them. Most importantly, it adopted a cleaner design for the new heating plant.

IV. Cases such as 10. A) that B) these C) this one show that China's growing body of environmental law and its fast-developing legal system now give ordinary people the possibility to protest that was previously unimaginable. Today, China's state-run media carry frequent accounts of lawsuits and public protests against plastics 11. A) factories B) farms C) industry, paper mills, and smelters across the country, launched by angry citizens suffering from the pollution these industries generate. In some of these reported cases, polluters have been forced 12. A) pay B) paid C) to pay compensation or make costly improvements to clean up their operations. For each successful case, however, Wang 13. A) would B) can C) might point to a failed one that illustrates China's system in which courts and administrative agencies lack any independence. Local governments in China often run industrial enterprises themselves. Even when they do not, they rely on such enterprises to provide 14. A) works B) jobs C) duties, economic growth, and tax revenue.

V. However pressure from China's increasingly aware public is likely to continue growing. According to a recent report from the U.S. Embassy in Beijing, environmentalism is one of the few fields in which social activism 15. A) is tolerated B) tolerates C) is tolerating in China, and college students are often at the forefront. The report said that as of last year, more than 180 student environmental groups were active in Sichuan province alone, working on issues such as public education, wetland conservation, and promotion of ecotourism.

VI. 16. A) Although B) Nevertheless C) Moreover the main priority of China's central planners is to sustain annual economic growth rates above 7 percent, they also intend to invest \$85 billion 17. A) above B) over C) up the next five years in the battle to reduce industrial pollution.

VII. Most Chinese environmental activists remain confident that **the situation will improve**. A major factor is the steady **rise in Chinese living standards and China's "green" foods industry**. Last year, more than 1,200 Chinese enterprises 18. A) have produced B) produced C) are producing \$6 billion worth products that met the Ministry of Agriculture's standards for such food. Although standards and regulations are less strict compared to those of many Western countries, these foods 19. A) should have been B) must C) should be free from harmful chemicals. Well-to-do Chinese urbanites are now paying high prices for such products. **Green products accounted for only 3 percent of China's food market last year, but officials predict that share will** 20. A) increase B) decrease C) stabilise rapidly **in years to come**. (International Herald Tribune. September 11, 2002)

1. In the 1st paragraph, the hotline set up by Mr Wang Canfa provides

- A) news updates on the environment
- B) legal assistance to victims of industrial pollution
- C) legal assistance to people with sad stories

2. The main idea of paragraph II is that the Centre

- A) represents Chinese awareness and readiness to protest for environmental improvements
- B) represents Chinese awareness of many environmental problems
- C) reflects Chinese unwillingness to protest

3. According to paragraph IV, China's state-run media
 - A) do not report public protests against industrial pollution
 - B) report public protests against industries
 - C) report unsuccessfully public protests against industries
4. The author concludes the article
 - A) pessimistically because Chinese do not consume organic foods sufficiently
 - B) optimistically thanks to a rise in Chinese living standards
 - C) optimistically thanks to future improved living standards and higher sales of organic foods

Item difficulties: Text D

D1Q20

Among the 20 grammatical MCQs, DQ20, in paragraph VII, was the MCQ on which the subjects scored highest: $m=0.97$, as shown below in the box extracted from Table 5.13:

	Valid N Subjects	Mean	Std.Dev.
D1Q20	69	0.97	0.17

DQ20 tested the knowledge of the subjects on the correct lexical item – **increase** – from the options: A) increase B) decrease C) stabilise. The high mean $m=0.97$, corresponding to the correct lexical item chosen, may be seen as cognately related to the Italian term:

Increase	incrementare
-----------------	---------------------

However, subjects may have derived meaning at a discourse level from relating the lexical item **increase** in the rheme referring to an event - **but** officials predict that share will **increase** rapidly in years to come – expressed in its Theme: Green products accounted for **only** 3 percent of China's food market last year.

Moreover, the adversative connective **but**, containing the logical meaning of 'and' (Halliday and Hasan 1976), introduces the Rheme, and it juxtaposes a change to the event in the Theme. The prediction that there will be an increase in sales of green products represents the Conclusion of the Argument which includes the Ground on which the journalist related that most Chinese environmental activists remain confident that: **the situation will improve**. A major factor is the steady **rise in Chinese living standards and China's "green" foods industry**. Thus, the anaphoric reference of the Conclusion to the Grounds indicates how the various steps of the argument are related to one another to form a continuity with what has preceded.

As Halliday and Hasan (1976) argue, continuity is not just an interesting feature associated with text, but a necessary one in its interpretation. There have to be semantic resources for linking a sentence with what has gone before, to interpret cohesion. Since this linking is achieved through relations in meaning, what is in question is the set of meaning relations which are drawn on for the purpose of creating text. So, it is not the presence of a particular class of item that is cohesive, but the relation between one item and another (ibid.:10-11).

Item difficulties: Text D

D1Q8

	Valid N Subjects	Mean	Std.Dev.
D1Q8	69	0.62	0.49

The mean score $m=0.62$ for question D1Q8, in the box above extracted from Table 5.13, meant that it was considered a medium difficulty item, since the mean score for the easiest item was $m=0.97$ and that of the most difficult $m=0.33$. In this MCQ the subjects had to decide which was the correct finite verb tense from those proposed in paragraph *III*:

Hanging on the walls of Wang's office in western Beijing are banners 5. A) who bear B) bore C) bearing inscriptions of thanks from those who **received** his help. One is from the residents of a neighbourhood in the northern port city of Tianjin who **were plagued** by a coal heating plant **operated** by a government real estate developer. 6. A) Their B) Theirs C) They complaints **were ignored**, and **when** the company **began** building a second plant, the residents **took** matters into their hands, blockading the road to the new plant and shutting down 7. A) a B) the C) an **construction work**. **Then** Wang **alerted** the press and **sent** in his lawyers. They **determined** that the company 8. A) violating B) **had violated** C) has violated regulations by allowing more than five years to pass.

The score on this MQ seems to indicate that the subjects may have not taken into consideration that a finite verb, as Gee (2001) argues, carries a marker of tense meaning that the state of affairs, named by the verb, exists at the same time as the act of speaking, or in the past of the act of speaking. In other words, in D1Q8 the subjects may not have chosen the correct answer because they did not evaluate whether the verb tense referred to a period of time previous to the act of narration of the events or to a tense related to the present, as the excerpt/text shows above.

Furthermore, the subjects may have ignored that this part of the expository text is narrating the condition of the residents of Tianjin. It therefore unfolds through a sequence of events which are

formed by the description of actions, wherein meaning may be derived from cohesive verb tenses and the underlining of successive events by the use of time connectives which together form a single unit of meaning.

Item difficulties: Text D

D1Q14

The mean score $m=0.33$ for question D1Q14 meant that it was considered among the most difficult items, as shown in the box below extracted from Table 5.13, since the mean score for the easiest item was $m=0.97$ and that for the intermediate difficulty one was $m=0.62$.

	Valid N Subjects	Mean	Std.Dev.
D1Q14	66	0.33	0.48

In this MCQ the subjects had to decide which was the correct lexical item - A) works B) jobs C) duties - from those proposed in paragraph IV:

IV. Cases such as this one show that China's growing body of environmental law and its fast-developing legal system now give ordinary people the possibility to protest that was previously unimaginable. Today, China's state-run media carry frequent accounts of lawsuits and public protests against plastics factories, paper mills and smelters across the country, launched by angry citizens suffering from the pollution these industries generate. In some of these reported cases, polluters have been forced to pay compensation or make costly improvements to clean up their operations. For each successful case, however, Wang can point to a failed one that illustrates China's system in which courts and administrative agencies lack any independence. Local governments in China often run industrial enterprises themselves. Even when they do not, they rely on such enterprises to provide 14. A) works B) jobs C) duties, economic growth, and tax revenue.

By taking a close look at the breakdown (§Appendix L: Table 5.33) of the answers chosen for D1Q14, option C) duties was the most selected instead of 'jobs', the correct answer. Strangely option A) **works**, which would be cognatedly related to the generic Italian term 'lavori', was relatively ignored by the subjects. Their choice of C) **duties** seems to suggest that they may have been influenced by the co-text in which two technical abstract noun groups are collocated: economic growth and tax revenue.

These two noun groups refer to economic concepts, to which another abstract noun group 'administrative agencies' is linked. Interestingly, the choice of 'duties', as a correct answer, signals that the subjects are referring to their specific-domain knowledge whilst reading a generic English journalistic text, yet their choice is inappropriate in the text. The inappropriateness of C)

duties as a choice may derive also from the various methodological defects in the language curricula of the EFL course at Economics, which I will discuss in chapter 6.

The low mean score for D1Q14 was also determined by 3 subjects (n=33) who did not choose from the MCs leaving a blank, thus underlining the difficulty of most subjects in tying information across sentences to derive meaning.

Item difficulties: Text D

D2Q1

Among the four informational MCQs, the one with the highest mean score, **m=0.99**, was D2Q1, shown in the box below extracted from Table 5.13

	Valid N Subjects	Mean	Std.Dev.
D2Q1	69	0.99	0.12

D2Q1 tested if the hotline set up by Mr Wang Canfa provided: A) news updates on the environment; B) legal assistance to victims of industrial pollution; C) legal assistance to people with sad stories, in paragraph I:

I. In the three years since he set up an environmental hotline, Wang Canfa has heard thousands of heartbreaking stories from people who say their health or livelihood has been imperilled by industrial pollution. The complaints come from **victims** all across China, but when Wang decides he can help, his response seems more typically American. “The first thing we do is send lawyers and reporters”, said Wang, director of the Beijing-based Centre for Legal Assistance to **Pollution Victims**.

The high mean score may suggest that the subjects derived informational meaning by connecting the theme of the 1st paragraph to the rest of the thesis expressed in the first paragraph. The various parts are tied together by lexical repetition – industrial pollution, victims, Pollution Victims. The latter is repeated also in the correct answer option, thus offering the subjects an additional clue to the correct answer.

The relatively high mean scores characterised also the other four informational MCQs on Text D – *In China, tide may turn against polluters* – D2Q2, D2Q3 and D2Q4, as the box extracted from Table 5.13 below shows:

	Valid N Subjects	Mean	Std.Dev.
D2Q2	68	0.91	0.29
D2Q3	68	0.91	0.29
D2Q4	68	0.88	0.32

In other words, their mean was higher than 0.85, therefore considered high, as already mentioned (items ≥ 0.85 were considered easy; items ≤ 0.40 were considered difficult, whereas the others were identified as intermediate values).

The second text to be examined and administered in chronological order to the subjects during the main study was the English economics textbook excerpt: Text E (§Ch.4).

Text E - English economics textbook excerpt

Text E – excerpt *The case for privatisation* – §Appendix 5 – as mentioned, was extracted from an English university economics textbook (Sloman 2000) and it is a sample of expository text belonging to the academic writing genre (Ch.3-3.7).

Typically in this expository text the economist begins with a thesis in the first paragraph and develops an argumentation, in the paragraphs following the first, through which s/he attempts to persuade his/her readers of his/her point of view on the initial thesis. Specifically, privatisation is beneficial not only to companies but also to consumers.

THE CASE FOR PRIVATISATION

I. Privatisation exposes industries to market forces which would benefit consumers by giving them choice, and also lower prices as a result of efficiency gains within privatised companies. This increased exposure to market forces could, it is often argued, bring benefits in terms of product, factor and capital markets.

II. The breaking of a state monopoly (e.g. as regards UK telecommunications, Mercury competing with BT) would enable consumers 1. A) to choose B) choose C) to choosing whichever company produced the product (good or service) they preferred. That company would then generate more profit and expand in response to consumer demand, whilst competitive pressure would be put on the company losing business to improve its service or go into liquidation. BT's reductions in telephone 2. A) fees B) cost C) charges during 1994 were widely regarded as being at least partly in response to competition. The pressure to meet such external competitive requirements should also improve internal efficiency as changes 3. A) can justify B) can be justifying C) can be justified to workers and managers by the need to respond to the market. The old public corporations in the UK were seen by some as producer led, serving the interests of management and workers rather than 4. A) these B) that C) those of consumers and shareholders (in this case tax payers). Privatisation introduces market forces which help to stimulate a change of organisational culture.

III. Trade unions can be expected to discover that previous customs and work practices, 5. A) agree B) agreed C) are agreeing when in the public sector are now challenged by privatisation as the stance taken by management changes from when it was in the state sector in an attempt to increase corporate efficiency. Similarly competition in the product market 6. A) will have forced B) will force C) would force moderation in wage demands increasing efficiency. Privatisation contributes in these various ways to the creation of flexibility in labour markets, higher productivity and 7. A) costs unit labour reduced B) labour costs reduced unit C) reduced unit labour costs.

IV. The privatised company now has to rely on capital markets for the 8. A) raising B) arising C) rising of finance. Poor performance in meeting consumer preferences or in utilising assets may now result in a share price which underperforms the rest of the stock market and undervalues the company's assets, ultimately leaving 9. A) it B) them C) they vulnerable to takeover by a company able to make better use of the assets. Supporters of privatisation argue that in these ways the capital markets are likely to be better judges for 10. A) to allocate B) allocating C) allocated scarce investment finance to 'efficient' companies than public officials in state owned corporations.

V. By 1994, share ownership in the UK 11. A) has spread B) had spread C) spreads to 22% of the adult population, having being only 7% as recently as 1981. The total number of UK shareholders is about the same as the number of trade-unionists. This increase in shareholding is, it is argued, largely due to privatisation. New groups of shareholders have attracted and have become participants in the 'enterprise culture'. Additionally 90% of the employees in the privatised companies have become shareholders in the companies they work for, at least initially. Worker share-ownership is advocated as a means of involving workers 12. A) more closely B) less closely C) most close with their companies and achieving improved industrial relations. This has been taken further by selling companies to 13. A) their B) they C) its managers or the consortium of managers and workers. It is regarded as a highly successful example, profits having grown more than tenfold since privatisation.

VI. In the UK, privatisation has been seen as a way of cutting public sector borrowing requirement (PSBR). Privatisation has also been seen as a way in which the PSBR 14. A) must B) might C) can be cut. The finance of external borrowing by the nationalised industries is regarded in accounting terms as being part of public expenditure, which then ceases when these industries become privately owned. Sales of assets or shares also increase 15. A) the government B) government C) a government income, again reducing the PSBR in the year of the sale. Over the period 1979/80 – 1993/94 the UK Treasury gained £55.2bn from asset sales. Privatisation made a very significant contribution to the budget surpluses of the late 1980s and to curbing the size of the budget deficits of the 1990s. Privatisation proceeds reduced the PSBR as a proportion of GDP 16. A) by B) of C) in more than 1.5% during the 1980s and in subsequent years.

VII. The activities of state-owned organisations are limited by their relationship with the government. They often lack financial freedom to raise investment capital externally because the government is concerned about restraining the 17. A) develop B) decrease C) growth of public expenditure. Privatisation is then seen as increasing the prospects for raising investment capital, thereby increasing efficiency and lowering prices. Indeed government control of investment expenditure by public corporations in the UK involves not only setting investment limits, but the need for official approval for specific capital projects of more than £20 million. 18. A) However B) Furthermore C) Despite, the nationalised industries also compete with other public sector services, such as health and education, for a share of public expenditure. In 19. A) much B) any C) many cases, diversification would be the sensible corporate response to poor market prospects in a particular industry or sector. Privatisation, then, is seen by its supporters as a means of greatly improving 20. A) economical B) economic C) economist performance.

1. The main idea of paragraph 2 is that
 - A) privatisation causes companies to change their internal organisation
 - B) privatisation causes companies to work more in favour of consumers and competitiveness
 - C) monopolies are beneficial for managers and workers
2. In paragraph 4, supporters of privatisation argue that capital markets
 - A) are certainly good judges in allocating finance
 - B) probably judge well in allocating finance
 - C) judge similarly to public officials in allocating investment finance
3. According to paragraphs 5 and 6 since privatisation
 - A) nationalised industries have reduced their public sector borrowing
 - B) most of nationalised industries have been sold to managers and workers
 - C) nationalised industries have cut public sector borrowing and increased shareholders
4. In paragraph 7 state-owned organisations
 - A) cannot often invest freely due to controls on public expenditure
 - B) cannot invest as freely as private companies due to necessary prior approvals
 - C) need more than £20 million capital projects to compete in services

Item difficulties: Text E

E3Q1

Among the 20 grammatical MCQs, E3Q1 was the MCQ on which the subjects scored highest: $m=0.96$, as shown below in the box extracted from Table 5.13, compared to E3Q9 $m=0.36$ and E3Q11 $m=0.18$:

	Valid N Subjects	Mean	Std.Dev.
E3Q1	73	0.96	0.20

EQ1 tested the knowledge of the subjects on the correct verb tense from the options: A) to choose B) choose C) to choosing in paragraph II:

II. The breaking of a state monopoly (e.g. as regards UK telecommunications, Mercury competing with BT) would enable consumers 1. A) to choose B) choose C) to choosing whichever company produced the product (good or service) they preferred. That company would then generate more profit and expand in response to consumer demand, whilst competitive pressure would be put on the company losing business to improve its service or go into liquidation. BT's reductions in telephone charges during 1994 were widely regarded as being at least partly in response to competition. The pressure to meet such external competitive requirements should also improve internal efficiency as changes can be justified to workers and managers by the need to respond to the market. The old public corporations in the UK were seen by some as producer led, serving the interests of management and workers rather than those of consumers and shareholders (in this case tax payers). Privatisation introduces market forces which help to stimulate a change of organisational culture.

The high mean $m=0.96$, corresponding to the choice of the correct verb tense – **to choose** – may be seen as related to the same Italian non finite tense – **scegliere** – which would be required, as in English, in relation to an agentive²⁹ performing an action – **to choose** performed by **consumers** - related to an external causer: **The breaking of a state monopoly**.

In this case, although the permission is generated by an abstract participant under the form of a nominalisation – **The breaking of a state monopoly** – the semantic role has remained constant – would **enable** consumers to choose – even though the grammatical structure used to express the situation may have changed.

Item difficulties: Text E

E3Q9

The mean score $m=0.36$ for question E3Q9 – in the box extracted from Table 5.13

	Valid N Subjects	Mean	Std.Dev.
E3Q9	73	0.36	0.48

meant that it was considered a medium difficulty item, since the mean score for the easiest item was $m=0.96$ and that of the most difficult $m=0.18$. In this MCQ the subjects had to decide which was the correct pronoun from those proposed in paragraph IV:

IV. The privatised company now has to rely on capital markets for the raising of finance. Poor performance in meeting consumer preferences or in utilising assets may now result in a share price which underperforms the rest of the stock market and undervalues **the company's assets**, ultimately leaving **9. A) it B) them C) they** vulnerable to takeover by a company able to make better use of the **assets**. Supporters of privatisation argue that in these ways the capital markets are likely to be better judges for allocating scarce investment finance to 'efficient' **companies** than public officials in state owned corporations.

The score on E3Q9 seems to indicate that the subjects did not consider that reference is a semantic relation, in which meaning is specified through the identification of a referent; the source of identification is the situation, so that, as Halliday and Hasan (1976, p. 308) argue, the relation of reference is basically an exophoric one.

In this case, the situation refers exophorically to how private companies can increase their capital. This exophoric reference, however, becomes cohesive through the presence of a verbal

²⁹ Agentive medians that a human (or other animate) decision or intention is involved, so that verbs expressing actions are usually accompanied by a word referring to a doer or an agent (Jackson, 1990, p.14).

referent in the text which replaces the situation wherein the relation of reference is established. Therefore, in any connected passage of discourse the reader must refer back to something that has already been mentioned which makes explicit that an identity of reference exists between the two (ibid.). It is this immediate referent that now constitutes the relevant environment in the theme: The privatised **company** now has to rely on capital markets for the raising of finance.

I therefore assume that the subjects may not have identified, firstly, the exophoric situation and, secondly, its verbal reference – **company** – in the theme of the text. This might have influenced the subjects in choosing the wrong deictic – them – whose referent is assets – and not **company** to which the deictic **it** refers anaphorically in the text.

A further hypothesis is that the choice of ‘them’ might have originated from reading the noun group ‘company’s assets’ ambiguously or as a single term. Indeed, the subjects failed to recognise the semantic relations which bind the theme (underlined) to the rheme by ignoring the ellipsis of the term ‘company’ in what is signalled as new information linked to what follows in the paragraph: The privatised **company** now has to rely on capital markets for the raising of finance. Poor performance of the company in meeting consumer preferences or in utilising assets may now result in a share price which underperforms the rest of the stock market ...]”. Here the ellipsis of the company displays a continuity with the preceding part of the text, so it is endophorically cohesive, and it provides the environment in which the presupposed item is located (ibid.).

Furthermore, the subjects’ wrong choice signals that they did not refer to their economics conceptual knowledge on takeovers, since the deictic **it** is also referred to by the takeover by a company. Indeed, a company takes over another company including its assets, but it cannot takeover the latter without the company.

Item difficulties: Text E

E3Q11

The mean score **m=0.18** for question E3Q11 – in the box extracted from Table 5.13

	Valid N Subjects	Mean	Std.Dev.
E3Q11	72	0.18	0.39

refers to what was evaluated as a difficult item, since the mean score for the easiest item was $m=0.96$ and that for the intermediate difficulty item $m=0.36$. In this MCQ the subjects had to decide which was the correct finite verb tense from those proposed in paragraph V:

V. By 1994, share ownership in the UK 11. A) **has spread** B) **had spread** C) **spreads** to 22% of the adult population, having being only 7% as recently as 1981. The total number of UK shareholders is about the same as the number of trade-unionists. This increase in shareholding is, it is argued, largely due to privatisation. New groups of shareholders have attracted and have become participants in the ‘enterprise culture’. Additionally 90% of the employees in the privatised companies have become shareholders in the companies they work for, at least initially. Worker share-ownership is advocated as a means of involving workers more closely with their companies and achieving improved industrial relations. This has been taken further by selling companies to 13. their managers or the consortium of managers and workers. It is regarded as a highly successful example, profits having grown more than tenfold since privatisation.

The score on this MQ seems to highlight that the subjects may have not considered, once again as in Text D-D1Q8, that a finite verb carries a marker of tense; that is, states, actions and events named by the verb are viewed as having a connection with the present or as occurring before the present moment.

Specifically, in D1Q11 by choosing prevalently the present perfective ‘has spread’ – as from the breakdown analysis of answers per Q (§Appendix L: Table 5.34) – the subjects seem to have ignored the reference to the temporal circumstance concerned with the location of the situation in time and its distribution through time. Therefore, in “By 1994, share ownership in the UK 11. A) has spread B) **had spread** C) spreads to 22% of the adult population, having being only 7% as recently as 1981”, the subjects ignored the two references to the past – By 1994 – which means within that year – and having being only 7% as recently as 1981 wherein the first reference to the past was referring to 1981 as a contrast in development of events over time. So, one point in the past becomes a point of orientation for another past time event.

This varying of remoteness was ignored by the subjects who seem to have been misled by the present tense used in the rest of the ground in the writer’s argument: The total number of UK shareholders is about the same as the number of trade-unionists. This increase in shareholding is, it is argued, largely due to privatisation [...]. Thus, the subjects’ choice of has spread as the wrongly correct answer was inappropriate to the meaning of the text which indicated a change in events before the present state.

Item difficulties: Text E

E4Q3

Among the four informational MCQs, the one with the highest mean score was E4Q3 – $m=0.82$ – shown below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
E4Q3	73	0.82	0.39

$M=0.82$ actually corresponds to an intermediate difficulty level score but, since there were no answers on the informational MCQs with a higher mean, I considered it the highest. E4Q3 tested the subjects on their comprehension of the consequences of privatisation: A) nationalised industries reduced their public sector borrowing; B) most of nationalised industries had been sold to managers and workers; C) nationalised industries had cut public sector borrowing and had increased their number of shareholders, according to paragraphs V and VI:

V. By 1994, share ownership in the UK had spread to 22% of the adult population, having being only 7% as recently as 1981. The total number of UK shareholders is about the same as the number of trade-unionists. This increase in shareholding is, it is argued, largely due to privatisation. New groups of shareholders have attracted and have become participants in the 'enterprise culture'. Additionally 90% of the employees in the privatised companies have become shareholders in the companies they work for, at least initially. Worker share-ownership is advocated as a means of involving workers more closely with their companies and achieving improved industrial relations. This has been taken further by selling companies to their managers or the consortium of managers and workers. It is regarded as a highly successful example, profits having grown more than tenfold since privatisation.

VI. In the UK, privatisation has been seen as a way of cutting public sector borrowing requirement (PSBR). Privatisation has also been seen as a way in which the PSBR can be cut. The finance of external borrowing by the nationalised industries is regarded in accounting terms as being part of public expenditure, which then ceases when these industries become privately owned. Sales of assets or shares also increase government income, again reducing the PSBR in the year of the sale. Over the period 1979/80 – 1993/94 the UK Treasury gained £55.2bn from asset sales. Privatisation made a very significant contribution to the budget surpluses of the late 1980s and to curbing the size of the budget deficits of the 1990s. Privatisation proceeds reduced the PSBR as a proportion of GDP by more than 1.5% during the 1980s and in subsequent years.

The high mean score suggests that the subjects may have derived informational meaning – i.e., nationalised industries had cut public sector borrowing and had increased their number of shareholders – by connecting semantically the theme and rheme (underlined) in paragraph V to the theme and rheme (underlined) in paragraph VI, that is, the grounds in which the writer developed his thesis expressed in the first paragraph.

In addition, the themes and rhemes are linked together by lexical cohesive devices, that is, by the direct repetition or in some sense synonymous with the lexical items as, for instance, share ownership, shareholders, shareholding, privatisation, cutting public sector borrowing. Their repetition contributes to the texture of the text.

Item difficulties: Text E

E4Q2

The lowest mean score, among the four informational MCQs, was E4Q2 - **m=0.42** - as can be seen below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
E4Q2	73	0.42	0.50

E4Q2 tested the subjects' comprehension on whether privatisation supporters argue that capital markets: A) are certainly good judges in allocating finance; B) probably judge well in allocating finance; C) judge similarly to public officials in allocating investment finance, in paragraph IV:

IV. The privatised company now has to rely on capital markets for the raising of finance. Poor performance in meeting consumer preferences or in utilising assets **may** now result in a share price which underperforms the rest of the stock market and undervalues the company's assets, ultimately leaving it vulnerable to takeover by a company able to make better use of the assets. Supporters of privatisation argue that in these ways the capital markets are **likely** to be better judges for allocating scarce investment finance to 'efficient' companies than public officials in state owned corporations.

The low score for E4Q2 indicates that the subjects might, firstly, have misunderstood the meaning of **likely** by choosing wrongly options A or C (§ Appendix L: Table 5.34) instead of B. Secondly, they might have ignored the possibility expressed grammatically by the modal verb **may**, in the rheme (underlined), which refers to the possibility of an underperformance of the company and of its assets' undervaluation; on the other hand, the subjects might have ignored the lexical reiteration signalling such a possibility indicated by the use of **likely**, in the conclusion.

The likeliness of capital markets being better judges than public officials in allocating finance is consequential to the ground, in its logical meaning underlined by the anaphoric reference of the deictic: in these ways. The anaphoric reference ties the various parts of the argument to create a cohesive semantic unit also by referring to the economic concept of finance raising, on the part of privatised companies.

Once again, the subjects seem to have had difficulties deriving meaning from the text by referring to their specific domain conceptual knowledge, learnt in Italian, and transferring it whilst reading a text including corresponding concepts in English. As previously mentioned, the issue may originate from the various methodological and pedagogical defects in the language curriculum of the EFL course at Economics.

The third text to be examined and administered in chronological order to the subjects, during the main study, was the Italian economics textbook excerpt: Text F (§Ch.4).

Text F – Italian economics textbook excerpt

Text F – The third excerpt, *Comportamento monopolistico* (1197 words) – §Appendix 6 –, was extracted from an Italian university economics textbook (Blanchard and Fischer 1999) and, like text E, it is a sample of expository text belonging to the academic writing genre.

As typically in expository texts, the economist begins with a thesis in the first paragraph which s/he then develops in the following paragraphs as an argument with the purpose of persuading his readers of his point of view on the initial thesis. In this particular text, how companies differentiate their products in the attempt to increase their market power and the relationship between demand, production and price within a monopoly.

COMPORTAMENTO MONOPOLISTICO

I. In un mercato concorrenziale esistono tipicamente numerose imprese che vendono un identico prodotto. Qualsiasi tentativo da parte di un'impresa di vendere il suo prodotto a un prezzo superiore a quello di mercato indurrà i consumatori ad abbandonarla e a rivolgersi alle imprese concorrenziali. 1. A) Inoltre B) Al contrario C) Di conseguenza, in una situazione di monopolio vi è un'impresa che vende un prodotto dato. Se il monopolista pratica un prezzo più alto perderà qualcuno dei suoi clienti, anche se non tutti.

II. In realtà la maggior parte delle industrie si trova in qualche punto intermedio tra i due estremi. Se un distributore di benzina di una piccola città aumenta il prezzo della benzina e perde la maggior parte dei suoi clienti, è ragionevole pensare che quell'impresa si debba comportare in modo 2. A) concorrenziale B) monopolistico C) monopsonico. Ma se un ristorante della stessa città aumenta i prezzi e perde solo pochi clienti, è altrettanto ragionevole pensare che abbia qualche potere di monopolio. Se un'impresa ha qualche potere di monopolio dispone di un maggior numero di opzioni di un'impresa in un 3. A) perfettamente concorrenziale mercato B) mercato perfettamente concorrenziale C) perfettamente mercato concorrenziale. Per esempio, può usare più complesse strategie di prezzo e di marketing che in un'industria concorrenziale. Oppure può tentare di differenziare il suo prodotto da quelli dei suoi concorrenti in modo da accrescere ulteriormente il suo potere di mercato.

III. Un monopolio produce in corrispondenza di un livello inefficiente di output, poiché lo riduce fino al punto 4. A) da cui B) in cui C) a quale i consumatori sono disposti ad acquistarne una unità addizionale ad un prezzo superiore al suo 5. A) profitto B) costo C) sovrapprezzo di

produzione. Il monopolista non intende produrre tale output addizionale perché in questo modo 6. A) avrebbe fatto B) farebbe C) fece diminuire il prezzo di tutto l'output.

IV. Ma, se il monopolista potesse vendere diverse unità di output a prezzi diversi, le cose cambierebbero. Questa pratica è chiamata 7. A) la B) una C) Ø discriminazione dei prezzi. Generalmente gli economisti distinguono tre tipi di discriminazione dei prezzi. La discriminazione dei prezzi di primo grado descrive una situazione in cui il monopolista vende unità diverse di output a prezzi diversi e questi prezzi 8. A) devono essere B) può darsi che siano C) possono essere diversi per ogni consumatore. Questa situazione viene a volte definita discriminazione perfetta dei prezzi. La discriminazione dei prezzi di secondo grado, invece, descrive una situazione in cui il monopolista vende unità diverse a prezzi 9. A) maggiori B) diversi C) uguali, ma ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo. Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. L'esempio più comune di questa situazione è lo sconto praticato sulle vendite 10. A) al dettaglio B) all'ingrosso C) rateali. La discriminazione dei prezzi di terzo grado descrive una situazione in cui il monopolista vende l'output a persone diverse a prezzi diversi, ma ciascuna unità di output è venduta ad un determinato consumatore allo stesso prezzo. Si tratta della forma più comune di discriminazione dei prezzi: un esempio 11. A) è costituito B) si costituisce C) è stato costituito dagli sconti per gli anziani, per gli studenti, e così via.

V. Quindi, definiamo monopolistica l'industria in cui è presente un solo produttore di grandi dimensioni, ma non è stato stabilito che cosa sia un'industria. Dovremmo definire industria l'insieme delle imprese che producono 12. A) consumi B) beni C) unità considerati stretti sostituti dai consumatori. Anche se un'impresa possiede il monopolio legale sui suoi marchi di fabbrica, così che le altre imprese non possono produrre esattamente lo stesso prodotto, è tuttavia possibile che le altre imprese 13. A) producono B) producano C) producessero prodotti simili. Dal punto di vista di un'impresa, le decisioni relative alla produzione dei suoi concorrenti saranno determinanti per decidere quanto produrre e quale prezzo 14. A) praticato B) per praticare C) praticare.

IV. Quindi, la curva di domanda per un'impresa dipenderà, in genere, dalle scelte relative alla produzione e dai prezzi praticati 15. A) alle B) dalle C) nelle imprese che producono prodotti simili. L'inclinazione della curva di domanda per un'impresa dipende da quanto simili sono i prodotti dei concorrenti. Se un gran numero di imprese nell'industria produce prodotti identici, la curva di domanda sarà per ciascuna di 16. A) esse B) essi C) voi sostanzialmente piatta. Ogni impresa dovrà vendere il proprio prodotto allo stesso prezzo delle altre. Se infatti alzasse il prezzo, portandolo al di sopra di quello praticato dalle imprese che vendono l'identico prodotto, perderebbe presto tutti i suoi clienti. D'altro lato, se un'impresa 17. A) possedeva B) avrà posseduto C) possiede i diritti esclusivi di vendita di un certo prodotto, può aumentarne il prezzo senza perdere i suoi clienti. 18. A) Alcuni B) Ogni C) Tutti clienti potrebbero orientarsi infatti verso i prodotti della concorrenza, ma non tutti. Il loro numero dipende da come i consumatori percepiscono la sostituibilità dei prodotti.

VII. Se un'impresa realizza un profitto in un'industria, vendendovi un determinato prodotto, mentre alle altre non è concesso di riprodurlo esattamente, è sempre possibile che queste ultime trovino conveniente entrare nell'industria producendo un prodotto simile ma differenziato. Gli economisti indicano questo fenomeno con il termine differenziazione dei prodotti: ogni impresa cerca di differenziare il proprio prodotto da quello delle altre imprese presenti nell'industria. Più la sua differenziazione è 19. A) inefficace B) efficace C) di breve durata, maggiore sarà il suo potere di monopolio – cioè più inelastica sarà la curva di domanda del prodotto. Un'industria come questa è detta in concorrenza monopolistica poiché ogni impresa si trova di fronte una curva di domanda del suo prodotto con inclinazione 20. A) negativa B) lineare C) positiva.

1. L'idea principale nel paragrafo 1 è che i consumatori

- A) spesso cambiano comportamento nei diversi mercati
 B) acquistano sempre il prodotto meno caro
 C) preferiscono acquistare prodotti costosi nel mercato concorrenziale
2. Nel paragrafo 2 la maggioranza delle imprese
 A) dovrebbe solo ridurre i prezzi
 B) dovrebbe avere potere di monopolio per aumentare il potere di mercato
 C) dovrebbe adottare più strategie di marketing per ampliare il proprio mercato
3. Secondo i paragrafi 3 e 4 il guadagno del monopolista si basa su
 A) una insufficiente discriminazione dei prezzi
 B) una produzione insufficiente ed una mancata discriminazione dei prezzi
 C) una vendita differenziata dei prodotti e dei prezzi secondo l'acquirente
4. Nel paragrafo 7 un'industria è in concorrenza monopolistica
 A) solo se riesce a riprodurre accuratamente un prodotto
 B) se differenzia efficacemente il suo prodotto dagli altri realizzando un profitto
 C) se riesce a realizzare un profitto

Item difficulties: Text F

F5Q17

Since there were eleven 20 grammatical MCQs out of the twenty Qs to which all subjects answered correctly, attaining the highest mean score, I decided to choose randomly one MCQ among the eleven mentioned. Given this, the mean score **m=1.00** for question F5Q17, as shown below in the box extracted from Table 5.13, compared to F5Q9 m=0.81 and F5Q8 m=0.47 was one on which the subjects scored highest:

	Valid N Subjects	Mean	Std.Dev.
FQ17	36	1.00	0.00

FQ17 tested the knowledge of the subjects on the finite verb tense from the options: A) possedeva B) avrà posseduto C) possiede from those proposed in paragraph IV:

IV. Quindi, la curva di domanda per un'impresa dipenderà, in genere, dalle scelte relative alla produzione e dai prezzi praticati dalle imprese che producono prodotti simili. L'inclinazione della curva di domanda per un'impresa dipende da quanto simili sono i prodotti dei concorrenti. Se un gran numero di imprese nell'industria produce prodotti identici, la curva di domanda sarà per ciascuna di esse sostanzialmente piatta. Ogni impresa dovrà vendere il proprio prodotto allo stesso prezzo delle altre. Se infatti alzasse il prezzo, portandolo al di sopra di quello praticato dalle imprese che vendono l'identico prodotto, perderebbe presto tutti i suoi clienti. D'altro lato, se un'impresa **17. A) possedeva B) avrà posseduto C) possiede** i diritti esclusivi di vendita di un certo prodotto, può aumentarne il prezzo senza perdere i suoi clienti. Alcuni clienti potrebbero orientarsi infatti verso i prodotti della concorrenza, ma non tutti. Il loro numero dipende da come i consumatori percepiscono la sostituibilità dei prodotti.

The high mean $m=1.00$ on this MQ corresponding to the correct verb tense chosen – **possiede** (possesses) – clearly indicates that, in Italian, the subjects considered that a finite verb carries a marker of tense; that is, states, actions and events named by the verb are viewed as having a connection with the present. Therefore, by choosing the present **possiede** the subjects showed they had referred to the temporal circumstance concerned with the location of the situation in time and its distribution through time.

In particular, the present tense **possiede** belongs to an hypothetical clause expressed in the present tense which contributes to the ground of the argument and it is linked anaphorically to the present tense of the finite verbs which precede it – for instance, producono (produce), dipende (depends), sono (are) – or cataphorically to the present finite verbs which follow it in the conclusion – può (can), dipende (depends), percepiscono (perceive). The repetitive use of the same verb tense creates a continuum from the theme to the conclusion through which the argument unfolds, thus giving way to a semantic unit of meaning referred to the state of a company depending on its production and price choices.

Item difficulties: Text F

F5Q9

The mean score $m=0.81$ for question F5Q9 – in the box below extracted from Table 5.13

	Valid N Subjects	Mean	Std.Dev.
F5Q9	36	0.81	0.40

meant that it was considered a medium difficulty item, since the mean score for the most difficult item was $m=0.47$ and that of the easiest $m=1.00$. In this MCQ the subjects had to decide which was the correct lexical item from those proposed in paragraph IV:

IV. Ma, se il monopolista potesse vendere diverse unità di output a prezzi diversi, le cose cambierebbero. Questa pratica è chiamata discriminazione dei prezzi. Generalmente gli economisti distinguono tre tipi di discriminazione dei prezzi. La discriminazione dei prezzi di primo grado descrive una situazione in cui il monopolista vende unità diverse di output a prezzi diversi e questi prezzi possono essere diversi per ogni consumatore. Questa situazione viene a volte definita discriminazione perfetta dei prezzi. La discriminazione dei prezzi di secondo grado, invece, descrive una situazione in cui il monopolista vende unità diverse a prezzi **9. A) maggiori B) diversi C) uguali, ma** ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo. Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. L'esempio più comune di questa situazione è lo sconto praticato sulle vendite all'ingrosso. La discriminazione dei prezzi di terzo grado descrive una situazione in cui il monopolista vende l'output a persone diverse a prezzi diversi, ma ciascuna unità di output è

venduta ad un determinato consumatore allo stesso prezzo. Si tratta della forma più comune di discriminazione dei prezzi: un esempio è costituito dagli sconti per gli anziani, per gli studenti, e così via.

The correct answer – **B) diversi** – chosen by the subjects for F5Q9 seems to suggest that they related the lexical item to the explanation of 2nd level price discrimination which is provided in the two following rhemes:

Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. (Therefore prices differ according to the quantità of the good, not relatively to the consumer).

L'esempio più comune di questa situazione è lo sconto praticato sulle vendite all'ingrosso. (The most common example of such a situation is a discount applied to wholesales).

The subjects' construal of meaning may have been further aided by two adversative items:

- 1) the adversative connective – **ma (but)**: ma ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo (**but** every consumer purchasing the same quantity of a good will pay the **same** price) – which juxtaposes a change to the state in the Theme while referring to it anaphorically;
- 2) the antonym - **stesso (same)** – in the rheme which contrasts with **diversi (different)** in the theme.

Furthermore, a parallelism is created in the rheme which follows. A contrastive connective **ma (but)** that reinforces the concept that prices vary according to their quantity **but** not according to the consumer: Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. The recurrent use of these connectives with the parallelisms which underline the contrast and the reiteration of the concept, developed by the writer, indicates how the various steps of the argument are related to one another to form a continuity with what has preceded. It seems this may have been considered by the subjects in their personal construal of meaning in the text.

However, in taking a close look at the breakdown analysis (§Appendix L) of the answers chosen for FQ9, it was surprising to see that although the text was in Italian, the subjects' primary language, some wrongly chose **C) uguali (the same)** as the correct answer, thus not construing meaning.

I suppose the subjects might have ignored, following Halliday and Hasan (1976), the set of meaning relations which are drawn on for the purpose of creating text. Their wrong choice might have also derived from fast reading in their primary language, or from gaps in their economics conceptual knowledge, since the correct lexical item was closely linked to the economic concept in the text.

Item difficulties: Text F

F5Q8

The lowest mean score, among the twenty grammatical MCQs for text F was F5Q8 – $m=0.47$ – as can be seen below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
F5Q8	36	0.47	0.51

In this MCQ the subjects had to decide which was the correct modal verb from those proposed in paragraph IV:

IV. Ma, se il monopolista **potesse vendere** diverse unità di output a prezzi diversi, le cose **cambierebbero**. Questa pratica è chiamata discriminazione dei prezzi. Generalmente gli economisti distinguono tre tipi di discriminazione dei prezzi. La discriminazione dei prezzi di primo grado descrive una situazione in cui il monopolista vende unità diverse di output a prezzi diversi e questi prezzi **8. A) devono essere B) può darsi che siano C) possono essere** diversi per ogni consumatore. Questa situazione viene a volte definita discriminazione perfetta dei prezzi. La discriminazione dei prezzi di secondo grado, invece, descrive una situazione in cui il monopolista vende unità diverse a prezzi diversi, ma ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo. Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. L'esempio più comune di questa situazione è lo sconto praticato sulle vendite all'ingrosso. La discriminazione dei prezzi di terzo grado descrive una situazione in cui il monopolista vende l'output a persone diverse a prezzi diversi, ma ciascuna unità di output è venduta ad un determinato consumatore allo stesso prezzo. Si tratta della forma più comune di discriminazione dei prezzi: un esempio è costituito dagli sconti per gli anziani, per gli studenti, e così via.

The low score for F5Q8 indicates that the subjects might have, firstly, not considered the anaphoric reference of the modal verb 'potere' (can) in **possono essere**, thus indicating circumstantial possibility in the description of first level price discrimination, to the hypothesis expressed at the beginning of the argument containing another circumstantial possibility: 'Ma, se il monopolista **potesse vendere** diverse unità di output a prezzi diversi, le cose **cambiarebbero**' (but if the monopolist **could sell** various units produced at different prices, things **would change**).

In addition, from the breakdown analysis of the answers to this MCQ (§Appendix L: Table 5.35), the majority of subjects erroneously chose **A) devono essere (must be)**, an obligation which expresses an externally imposed one (Jackson 1990) and does not refer anaphorically to the possibility of a monopolist selling goods at different prices. The choice of the modal verb, though, does not only refer to a grammatical choice from the system of modality but it is also linked to the concept of price discrimination in a monopoly. Not being able to discriminate between the possibility or the obligation of applying different prices to different customers could mean that the concept was not completely understood by the subjects or had not been taught according to an appropriate pedagogical methodology.

Item difficulties: Text F

F6Q4

Among the four informational MCQs, the one with the highest mean score was F6Q4 – **m=1.00** – shown below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
F6Q4	36	1.00	0.00

F6Q4 tested the subjects' comprehension on the definition of when industries are in a competitive monopoly – A) solo se riesce a riprodurre accuratamente un prodotto (only if they can produce a product accurately); B) se differenzia efficacemente il suo prodotto dagli altri realizzando un profitto (if they differentiate their product from the others gaining a profit); C) se riesce a realizzare un profitto (if they only gain a profit) – in paragraph VII:

VII. Se un'impresa realizza un profitto in un'industria, vendendovi un determinato prodotto, mentre alla altre non è concesso di riprodurlo esattamente, è sempre possibile che queste ultime trovino conveniente entrare nell'industria producendo un prodotto simile ma differenziato. Gli economisti indicano questo fenomeno con il termine differenziazione dei prodotti: ogni impresa cerca di differenziare il proprio prodotto da quello delle altre imprese presenti nell'industria. Più la sua differenziazione è efficace, maggiore sarà il suo potere di monopolio – cioè più inelastica sarà la curva di domanda del prodotto. Un'industria come questa è detta in concorrenza monopolistica poiché ogni impresa si trova di fronte una curva di domanda del suo prodotto con inclinazione negativa.

The very high score on this MCQ indicated that the subjects might have been able to connect the various parts which form the argument thus construing meaning. Indeed, the text begins with an initial hypothesis of how companies which cannot produce an exact copy of a profitable product, can nevertheless make a profit by producing a similar differentiated product. More effective its

differentiation, higher its monopoly power. The definition implicitly states that longer the monopoly, higher the profits. The subjects seemed to have not only used their textual references to create cohesion, but also their ability to infer meaning by referring to their specific domain conceptual knowledge in Italian.

Item difficulties: Text F

F6Q2

Among the four informational MCQs, the one that was considered a medium difficulty item was F6Q2 with mean score – **m=0.47** – shown below in the box extracted from Table 5.13 – whilst the mean score for the easiest item was m=1.00 and for the most difficult one m=0.17.

	Valid N Subjects	Mean	Std.Dev.
F6Q2	36	0.47	0.51

F6Q2 tested the subjects' comprehension on whether most companies A) *dovrebbe solo ridurre i prezzi* (should only reduce their prices); **B) dovrebbe avere potere di monopolio per aumentare il potere di mercato** (should have monopoly power to increase their market power); C) *dovrebbe adottare più strategie di marketing per ampliare il proprio mercato* (should use more marketing strategies to widen their market share) - in paragraph II:

II. In realtà la maggior parte delle industrie si trova in qualche punto intermedio tra i due estremi. Se un distributore di benzina di una piccola città aumenta il prezzo della benzina e perde la maggior parte dei suoi clienti, è ragionevole pensare che quell'impresa si debba comportare in modo concorrenziale. Ma se un ristorante della stessa città aumenta i prezzi e perde solo pochi clienti, è altrettanto ragionevole pensare che abbia qualche potere di monopolio. Se un'impresa ha qualche potere di monopolio dispone di un maggior numero di opzioni di un'impresa in un mercato perfettamente concorrenziale. Per esempio, può usare più complesse strategie di prezzo e di marketing che in un'industria concorrenziale. Oppure può tentare di differenziare il suo prodotto da quelli dei suoi concorrenti in modo da accrescere ulteriormente il suo potere di mercato.

The medium difficulty score for F6Q2 indicates that the subjects might have not considered the phases of discourse in this paragraph. More specifically, they might have ignored the anaphoric and predictive hyperTheme – In realtà la maggior parte delle industrie si trova in qualche punto intermedio tra i due estremi (Actually most industries are somewhere in between the two extremes) – which establishes expectations about how the text will unfold (Martin and Rose 2003) by accumulating new information.

Specifically, two examples, one on a petrol pump, another on a restaurant – end in a hypothetical sentence functioning as a hyperNew to the new phase (ibid.:182): Se un'impresa ha qualche potere di monopolio dispone di un maggior numero di opzioni di un'impresa in un mercato perfettamente concorrenziale (If a **company** has some monopoly power, it has many more options than a company in a perfect competitive market).

The latter provided the information which most subjects did not recognise (§Appendix L: Table 5.35) considering instead wrongly correct the example which follows the hyperNew: Per esempio, **può** usare più complesse strategie di prezzo e di marketing che in un'industria concorrenziale (for example, **it can** use more complex price and marketing strategies than in a competitive market).

Moreover, the example makes explicit that an identity of reference exists between **it**, in the example, and **impresa/company** in the hyperNew, but the subjects showed that they did not recognise how the text develops through patterns of given and new in order to establish a point.

Item difficulties: Text F

F6Q3

The lowest mean score, among the four informational MCQs, was F6Q3 – **m=0.17** – as can be seen below in the box extracted from Table 5.13 – whilst the mean score for the easiest item was m=1.00 and for the intermediate difficulty one m=0.47.

	Valid N Subjects	Mean	Std.Dev.
F6Q3	36	0.17	0.38

F6Q3 tested the subjects' comprehension on whether a monopolist's earning is based on A) una insufficiente discriminazione dei prezzi (insufficient price discrimination); **B) una produzione insufficiente ed una mancata discriminazione dei prezzi (insufficient production and no price discrimination)**; C) una vendita differenziata dei prodotti e dei prezzi secondo l'acquirente (differentiated sale of products and differentiated prices according to the buyer) according to paragraphs *III* and *IV*:

III. Un monopolio produce in corrispondenza di un livello inefficiente di output, poiché lo riduce fino al punto in cui i consumatori sono disposti ad acquistarne una unità addizionale ad un prezzo superiore al suo costo di produzione. Il monopolista non intende produrre tale output addizionale perché in questo modo farebbe diminuire il prezzo di tutto l'output.

IV. Ma, se il monopolista potesse vendere diverse unità di output a prezzi diversi, le cose cambierebbero. Questa pratica è chiamata discriminazione dei prezzi. Generalmente gli economisti distinguono tre tipi di discriminazione dei prezzi. La discriminazione dei prezzi di primo grado descrive una situazione in cui il monopolista vende unità diverse di output a prezzi diversi e questi prezzi possono essere diversi per ogni consumatore. Questa situazione viene a volte definita discriminazione perfetta dei prezzi. La discriminazione dei prezzi di secondo grado, invece, descrive una situazione in cui il monopolista vende unità diverse a prezzi diversi, ma ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo. Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. L'esempio più comune di questa situazione è lo sconto praticato sulle vendite all'ingrosso. La discriminazione dei prezzi di terzo grado descrive una situazione in cui il monopolista vende l'output a persone diverse a prezzi diversi, ma ciascuna unità di output è venduta ad un determinato consumatore allo stesso prezzo. Si tratta della forma più comune di discriminazione dei prezzi: un esempio è costituito dagli sconti per gli anziani, per gli studenti, e così via.

The low score for F6Q3 indicated that the subjects might have not linked the rheme of the argument in paragraph *III* - Un monopolio produce in corrispondenza di un livello inefficiente di output (a monopoly produces at an insufficient output level) – with its conclusion - Il monopolista non intende produrre tale output addizionale perché in questo modo farebbe diminuire il prezzo di tutto l'output (a monopolist does not produce additional output because it would decrease the price of the whole output) – to the rheme of paragraph *IV* - Ma, se il monopolista potesse vendere diverse unità di output a prezzi diversi, le cose cambierebbero (But, if the monopolist could sell different output units at different prices, things would change).

The rheme of paragraph *IV* required a certain degree of inferencing on the part of the subjects who should have realised that the hypothesis was indicating a lack of price discrimination which is what monopolists base their earnings on. This had already been implicitly stated also in the conclusion of the preceding paragraph - a monopolist does not produce additional output because it would decrease the price of the whole output.

It is important, I think, to acknowledge the difficulties the subjects might have had in inferring information, although they were reading a text in their primary language, since the tendency, also at tertiary level instruction at undergraduate level in Italy in a Faculty as Economics, is to perpetuate rote learning. Given this, most of the subjects chose option C) una vendita differenziata dei prodotti e dei prezzi secondo l'acquirente (differentiated sale of products and differentiated prices according to the buyer) denoting that they were misled by the definition of price discrimination. This is related to how the monopolist's position would change if price discrimination was enacted.

The fourth and last text to be examined and administered in chronological order to the subjects, during the main study, was the journalistic article in Business English: Text G (§Ch.4).

Text G - Business news article

Text G – *Rate Hikes a Concern* – §Appendix 7 – as mentioned in Ch.3-3.7, is a business news article in English belonging to the news genre. It consists of a thesis – paragraph I – followed by seven paragraphs which represent the arguments and the conclusion through which the journalist discusses the topic, by presenting two different perspectives, with the purpose of persuading his/her readership to his/her point of view in the thesis.

The article discusses the move of a Greek bank to increase consumer, mortgage and credit card rates. Such a move is said to actually hide the higher operating costs of Greek banks compared to the Eurozone ones, and the banks' lack of sufficient competitiveness.

RATE HIKES A CONCERN

Alpha's move to increase loan rates may hide inability to cut operating costs

I. Alpha Bank's surprise move to increase consumer, mortgage and credit card rates last week may be partly explained by its desire to boost profits ahead of anticipated slowdown in retail lending this year. But the action, however, coupled with other major banks' expressed willingness to review 1. *a) their b) its c) theirs* own lending-rate structure despite the downward trend in euro interest rates, 2. *a) arises b) rises c) raises* serious questions about competition and competitiveness in the Greek banking system in general.

II. Alpha Bank, the country's second largest bank in terms of assets, 3. *a) announced b) has announced c) is announcing* last week a new set of higher interest rates on mortgages, consumer loans and credit cards and called 4. *a) them b) it c) they* a "rationalization of our pricing policy". Bank analysts and others were quick to point out that Alpha, which traditionally had a relatively large market share in the business loan category but a much smaller share in the lucrative consumer and mortgage loan 5. *a) section b) zone c) segment*, had taken the lead to cut consumer lending rates in the summer of 2000 and certain rates on mortgages in 2001 in a bid to capture market share in the 6. *a) local retail banking promising b) promising local retail banking c) banking retail promising local*.

III. 7. *a) Ø b) The c) A* same analysts noted that Alpha's top management perhaps felt it had captured a satisfactory market share in consumer and mortgage loans and decided to focus on boosting 8. *a) profits b) earnings c) expenditure* rather than go for a bigger slice in a year. Most analysts believe consumer lending growth 9. *a) will limit b) will be limited c) will have limited* to a low double-digit number at best and mortgage lending growth rates will slow down considerably after surpassing the 30 percent mark in 2002. The expected slowdown is attributed both to general 10. *a) economical b) economic c) economics* conditions as well as the Bank of Greece's introduction of stricter capital requirements for consumer loans in mid-January.

IV. Analysts also pointed out that the rate hike made room for a reduction in the same lending rates later on the heels of the European Central Bank's (ECB) likely decision to cut its main refinancing rate, which currently stands at 2.75 percent, 11. *a) by b) at c) in* 25 or even 50 basis points. The majority of the analysts predict a rate cut in March or April at the latest. 12. *a) Any b) Some c) Every* even speculated the move may have been aimed at making Alpha Bank more

attractive to a potential foreign bank interested in linking up with the Greek bank by acquiring the latter's 10 percent equity stake.

V. 13. *a) Although b) In spite of c) Therefore* Greek bankers have not disputed that consumer and personal lending rates are among the highest in the European Union, they have long countered that their mortgage rates are among the lowest in the EU. This is hard to confirm, however. Figures 14. *a) providing b) who are provided c) provided* by UBS Warburg show that the spread on a typical variable rate mortgage ranges between 2.25 and 3.25 percentage points in Greece. This spread compares unfavourably to 0.7 points on average in France, 0.9 points in Germany, 1.5 points in Italy and 0.9 points for new mortgages in the U.K.

VI. If one takes into account the fact that the five major Greek banks offer deposit rates below the eurozone average, although Greek inflation is among the highest in the eurozone and the EU running at 3.1 percent in January, then one 15. *a) had to conclude b) has been concluding c) has to conclude* that these banks have an advantage for two reasons. First, their deposit base gives them access to cheaper funding for their assets than the market can provide for. Second, they can charge much 16. *a) highest b) higher c) high* lending rates to their customers for consumer loans than the majority of their peers in the eurozone.

VII. This combination of low deposit rates and high lending rates in consumer and mortgage categories explains their stated strategy of expanding into retail banking. It 17. *a) can b) will c) must* be explained, analysts point out, by the high concentration in the Greek banking sector as well as high growth rates. They add that access to retail banking requires an extensive branch network and 18. *a) this b) that c) these* works as a barrier to new entrants, even large eurozone banks.

VIII. Faced with three consecutive years of decline, it is easy to understand why large banks want to increase their profits and satisfy their 19. *a) market makers b) shareholders c) creditor*. Analysts point out that their decision to increase rates in the context of high consumer and variable mortgage rates and very low deposit rates may be indicative of the limits they face in cutting their operational costs. This in turn rings alarm bells about their medium-term competitiveness in a field 20. *a) become b) to become c) became* more open to competition in the years ahead and a projected slowdown in high Greek GDP growth rates.

1. The main idea of paragraph I is that

- A) an increase of loan rates actually signals competitiveness problems in the Greek banking system
- B) Alpha Bank's increase of loan rates is an anticipation of the retail lending slowdown
- C) the major banks in Greece are to review their lending-rate structure

2. In paragraph IV the term 'hike' means

- A) a decrease
- B) an increase
- C) a walk

3. According to paragraph V, Greek bankers

- A) offer the lowest mortgage rates in the EU
- B) have among the highest mortgage rates compared to other EU countries
- C) have mortgage rates which vary every three months

4. According to paragraph VIII large banks

- A) have intention of increasing loan rates only because operational costs cannot be reduced
- B) have to just face three years of crisis
- C) have intention of increasing loan rates to face a limited cut of operating costs and future competition

Item difficulties: Text G

G7Q6

Among the 20 grammatical MCQs, D7Q6 was the MCQ on which the subjects scored highest, $m=0.91$, as shown below in the box extracted from Table 5.13:

	Valid N Subjects	Mean	Std.Dev.
G7Q6	33	0.91	0.29

G7Q6 tested the knowledge of the subjects on the correct noun phrase – **promising local retail banking** – from the options in paragraph II:

II. Alpha Bank, the country's second largest bank in terms of assets, announced last week a new set of higher interest rates on mortgages, consumer loans and credit cards and called it a "rationalization of our pricing policy". Bank analysts and others were quick to point out that Alpha, which traditionally had a relatively large market share in the business loan category but a much smaller share in the lucrative consumer and mortgage loan segment, had taken the lead to cut consumer lending rates in the summer of 2000 and certain rates on mortgages in 2001 in a bid to capture market share in the **6. A) local retail banking promising b) promising local retail banking C) banking retail promising local.**

The high mean $m=0.91$ may have resulted from the noun phrase - **promising local retail banking** - seen as related to the Italian – **promettenti casse di risparmio locali** – wherein, as in English and unlike options A and C, the noun is pre-modified by the participle **promising/promettente** and the noun modifiers – **local retail** – in Italian undergo a change. The adjective **local** is postponed after the noun, whereas **retail banking** is translated as **casse di risparmio**.

However, the noun phrases in both languages are characterised by a participle acting as an adjectival pre-modifier which the subjects may have considered, correctly, the only possible option suitable to such a collocation.

Item difficulties: Text G

G7Q9

The mean score $m=0.58$ for question G7Q9 – in the box below extracted from Table 5.13 - meant that it was considered a medium difficulty item, since the mean score for the easiest item was $m=0.91$ and that of the most difficult $m=0.22$.

	Valid N Subjects	Mean	Minimum Scores	Maximum Scores	Std.Dev.
G7Q9	33	0.58	0	1	0.50

In this MCQ the subjects had to decide which was the correct finite verb tense from those proposed in paragraph *III*:

III. The same analysts noted that Alpha's top management perhaps felt it had captured a satisfactory market share in consumer and mortgage loans and decided to focus on boosting profits rather than go for a bigger slice in a year. Most analysts believe consumer lending growth **9. A) will limit B) will be limited C) will have limited** to a low double-digit number at best **and mortgage lending growth rates will slow down** considerably after surpassing the 30 percent mark in 2002. The expected slowdown is attributed both to general economic conditions as well as the Bank of Greece's introduction of stricter capital requirements for consumer loans in mid-January.

The mean score **m=0.58** for question G7Q9 signals that the subjects may have been misled by the analysts' economic predictions on a transitional consumer lending growth event which would usually be expressed by an active future tense, whereas in this case, because the verb is followed by to a low double-digit number a passive is used.

In addition, from the breakdown analysis of the answers per each MCQ (§Appendix L: Table 5.36), the majority of the subjects appear to have chosen option **A) will limit** which suggests they might have been erroneously influenced by the active future tense mortgage lending growth rates will slow down used in the sentence which follows. The latter is linked to the one preceding it by the additive conjunction **and**, thus creating a semantic cohesion between the two which might have influenced the erroneous choice of the subjects.

Interestingly, the choices made by the latter suggest that they attempted to connect each step in the argument to the other, but without focussing sufficiently on the grammatical features which, in relation to other items, build cohesion in the text.

Item difficulties: Text G

G7Q2

The lowest mean score, among the twenty grammatical MCQs for text G was G7Q2 – **m=0.22** – as can be seen below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
G7Q2	32	0.22	0.42

In this MCQ the subjects had to decide which was the correct lexical item from those proposed in paragraph *I*:

I. Alpha Bank's surprise move to increase consumer, mortgage and credit card rates last week may be partly explained by its desire to boost profits ahead of anticipated slowdown in retail lending this year. But the action, however, coupled with other major banks' expressed willingness to review their own lending-rate structure despite the downward trend in euro interest rates, **2. A) arises B) rises C) raises** serious questions about competition and competitiveness in the Greek banking system in general.

The breakdown analysis (§Appendix L: Table 5.36) of each answer per MCQ of the test and the low mean score on this MCQ indicated that the subjects had predominantly chosen option **A) arises** indicating that they were most probably guessing which was the correct answer, since **arises** does not make sense with the co-text. More specifically, **arises** would have required being followed by the preposition 'from', which is not found in the text, thus I hypothesise that the subjects guessed which could be the correct answer.

Item difficulties: Text G

G8Q4

Among the four informational MCQs, the one with the highest mean score was G8Q4 – **m=0.82** – shown below in the box extracted from Table 5.13. This mean **m=0.82** actually corresponds to an intermediate difficulty level score, but since there were no answers on the informational MCQs with a higher mean I considered it the highest.

	Valid N Subjects	Mean	Std.Dev.
G8Q4	33	0.82	0.39

G8Q4 tested the subjects' comprehension on whether large banks A) have intention of increasing loan rates only because operational costs cannot be reduced; B) have to just face three years of crisis; C) **have intention of increasing loan rates to face a limited cut of operating costs and future competition**, according to paragraph *VIII*:

VIII. Faced with three consecutive years of decline, it is easy to understand why large banks want to increase their profits and satisfy their shareholders. Analysts point out that their decision to increase rates in the context of high consumer and variable mortgage rates and very low

deposit rates may be indicative of the limits they face in cutting their operational costs. This in turn rings alarm bells about their medium-term competitiveness in a field to become more open to competition in the years ahead **and** a projected slowdown in high Greek GDP growth rates.

The high mean score for this MCQ seems to have derived from the capacity of the subjects to connect the various parts that form the conclusion of this business journalistic text. Specifically, the decision of the banks noted in the rhyme to increase rates which may be indicative of the limits they face in cutting their operational costs linked to the two sentences which follow which are joined by the additive conjunction **and** – their medium-term competitiveness in a field to become more open to competition in the years ahead **and** a projected slowdown in high Greek GDP growth rates. This builds a semantic cohesion between the two parts of the text which are also linked to the ending of the conclusion wherein the journalist refers to the changes in the field that will become more open to competition.

Thus, I assume the high mean score for the MCQ may have derived not only from the subjects' capacity to connect parts of the text but from the MCQ itself. It was in fact based on the comprehension of surface level information and did not require much inferring on the part of the subjects.

Item difficulties: Text G

G8Q1

The lowest mean score, among the four informational MCQs for text G was G8Q1 – **m=0.30** – as can be seen below in the box extracted from Table 5.13.

	Valid N Subjects	Mean	Std.Dev.
G8Q1	33	0.30	0.47

GCQ1 tested the subjects' comprehension on whether the main idea of paragraph *I* was that **A) an increase of loan rates actually signals competitiveness problems in the Greek banking system**; B) Alpha Bank's increase of loan rates is an anticipation of the retail lending slowdown; C) the major banks in Greece are to review their lending-rate structure:

I. Alpha Bank's surprise move to increase consumer, mortgage and credit card rates last week may be partly explained by its desire to boost profits ahead of anticipated slowdown in retail lending this year. **But the action**, however, coupled with other major banks' expressed willingness to review their own lending-rate structure despite the downward trend in euro interest rates, **raises serious questions about competition and competitiveness in the Greek banking system in general**.

The low mean score on G8Q1 seems to reveal that the subjects had difficulty connecting the semantic relations throughout the paragraph and therefore considered only the theme: Alpha Bank's surprise move to increase consumer, mortgage and credit card rates last week **may be partly explained** by its desire to boost profits ahead of anticipated slowdown in retail lending this year.

On the contrary, to understand which was the main idea of the paragraph only few subjects, as from the breakdown analysis of the answers per each MCQ (§Appendix L: Table 5.36), went a step ahead and connected the above mentioned theme to the rheme – **But the action,** [...] raises serious questions about competition and competitiveness in the Greek banking system in general. The latter is juxtaposed to the theme by the adversative connective **but**, which introduces a change to the event – the surprise increase in bank rates – referred to in the theme. The adversative connective is logically related cataphorically to the information that follows on in the rheme, that is, the change of events which raises serious questions about competition and competitiveness in the Greek banking system in general.

The subjects seemed to have also ignored that the information in the theme has a meaning of possibility expressed by the modal verb **may be partly explained**, signalling that some additional information on the event is to be expected in the text. The difficulty the subjects showed in deriving meaning from the modal verb **may** seems to be linked to the fuzzy understanding the subjects have of the meanings of possibility expressed grammatically by choices from the system of modality (Jackson 1990), as for instance between may and might, or between may and can.

The various steps through which the text unfolds are related to one another to form a continuity which is fundamental for interpreting the text. The linking of the semantic resources is achieved through relations in meaning and they are drawn on for the purpose of creating text. So, it is not the presence of a particular class of item that is cohesive, but the relation between one item and another that is crucial, as Halliday and Hasan (1976) claim.

b) Item difficulties: pilot study

As mentioned in section **a**, I considered it crucial to gain a complete view of the issues related to the reading performance and proficiency of the subjects in this study. I therefore extended my

item difficulties analysis to the tests included in the pilot study – B3, B4, C5 and C6 – according to the procedure followed in the main study.

The purpose of extending the item difficulties analysis was to confirm:

- i) if a relationship exists between the subjects' capacity to use grammatical and structural components whilst reading and construing meaning in Italian texts as well as when using the same components to derive meaning in the same text but in English.
- ii) if a transfer exists between domain-specific knowledge in an Italian text and the comprehension of the same concepts in the same text in English.

As in the main study, the items with means ≥ 0.85 were considered easy (Ebel 1972); items ≤ 0.40 ³⁰ were considered difficult, whereas the others were identified as intermediate values. These are listed in Table 5.14 below.

Table 5.14 Descriptive statistics: item difficulties. Pilot study

	Valid n	Mean	Std.dev.
B3Q1	15	1,00	0,00
B3Q2	15	1,00	0,00
B3Q3	15	1,00	0,00
B3Q4	15	0,80	0,41
B3Q5	14	0,71	0,47
B3Q6	15	0,80	0,41
B3Q7	15	1,00	0,00
B3Q8	15	0,40	0,51
B3Q9	15	0,27	0,46
B3Q10	15	0,73	0,46
B3Q11	15	0,27	0,46
B3Q12	15	1,00	0,00
B3Q13	15	0,73	0,46
B3Q14	15	0,53	0,52
B3Q15	15	0,80	0,41
B3Q16	15	1,00	0,00
B3Q17	15	0,27	0,46

³⁰ Ebel indicates 0.15 as a guideline for “very difficult”.

B3Q18	15	0,47	0,52
B3Q19	15	1,00	0,00
B3Q20	15	1,00	0,00
B4Q1	15	0,60	0,51
B4Q2	15	1,00	0,00
B4Q3	15	0,20	0,41
B4Q4	15	0,47	0,52
C5Q1	15	0,47	0,52
C5Q2	15	0,80	0,41
C5Q3	15	0,73	0,46
C5Q4	15	1,00	0,00
C5Q5	15	0,20	0,41
C5Q6	15	0,93	0,26
C5Q7	15	0,73	0,46
C5Q8	15	0,20	0,41
C5Q9	15	0,27	0,46
C5Q10	15	0,53	0,52
C5Q11	15	0,73	0,46
C5Q12	15	0,47	0,52
C5Q13	15	0,40	0,51
C5Q14	15	0,33	0,49
C5Q15	15	0,80	0,41
C5Q16	15	0,87	0,35
C5Q17	15	0,87	0,35
C5Q18	15	0,67	0,49
C5Q19	15	0,47	0,52
C5Q20	15	0,87	0,35
C6Q1	15	0,73	0,46
C6Q2	15	0,67	0,49
C6Q3	15	0,67	0,49
C6Q4	15	0,87	0,35

Text B – Italian economics textbook excerpt

Text B - The excerpt, *Costi di aggiustamento dei prezzi ed effetti reali della moneta nominale* (1140 words) – §Appendix 2 – was extracted from the Italian version of the English economics textbook: O. J. Blanchard and S. Fisher, *Lectures on Macroeconomics*. Like texts E and F, in the main study, B is a sample of expository text belonging to the textbook genre in which the

economist begins with a thesis, in the first paragraph, and develops, in the following ones, an argument with the purpose of persuading his/her readers of his/her point of view on the initial thesis. The text focuses on changing prices and real effects of nominal money in a monopolistic competitive equilibrium and in a competitive equilibrium.

COSTI DI AGGIUSTAMENTO DEI PREZZI ED EFFETTI REALI DELLA MONETA NOMINALE

I. In che modo l'equilibrio monopolistico differisce da quello concorrenziale? Se ogni produttore agisse sulla base di criteri concorrenziali l'equilibrio 1. A) situera B) si situerebbe C) si situa nel punto di intersezione tra la curva del costo marginale e la curva di domanda. Dato che la curva di domanda deve passare per *B*, 2. A) questo B) quello C) quella significa che in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate: il livello di produzione sarebbe maggiore e il livello dei prezzi inferiore. Si noti che 3. A) molti B) pochi C) tutti i produttori hanno lo stesso grado di potere monopolistico: quest'ultimo quindi non ha effetti sul prezzo relativo dei beni prodotti. La concorrenza monopolistica invece influisce sul livello dei prezzi, che risulta 4. A) più elevato B) meno elevato C) uguale rispetto a quanto avviene in concorrenza perfetta. Il benessere, misurato dal surplus di 5. A) consumatori B) dettaglianti C) investitori e produttori è più elevato in concorrenza perfetta. In concorrenza monopolistica la moneta è neutrale, esattamente come in concorrenza perfetta. Ci chiederemo cosa succede se i *price-setters* sopportano dei costi quando modificano i loro prezzi. Prima però sarà utile riformulare l'inefficienza di un sistema di concorrenza monopolistica 6. A) in B) a C) su termini di esternalità pecuniarie – o di “domanda aggregata”.

II. Questa esternalità sorge in quanto una diminuzione dei prezzi nominali di un singolo produttore provoca due effetti. Innanzitutto 7. A) essa B) esso C) essi aumenta la domanda per il bene di quel produttore; in secondo luogo, diminuendo il livello generale dei prezzi, 8. A) incrementerà B) incrementa C) incrementando il livello delle scorte monetarie reali, e quindi favorisce un aumento della domanda e della produzione dei beni di tutti gli altri produttori. In equilibrio, i prezzi sono tali che il primo effetto sui profitti è 9. A) marginale B) pari a zero C) altamente positivo al primo ordine: ogni produttore non ha nessun incentivo a cambiare i propri prezzi. Ma dato che in concorrenza monopolistica la produzione è inizialmente al di sotto del 10. A) ottimo livello socialmente B) livello socialmente ottimo C) ottimo livello socialmente, il secondo effetto produce 11. A) un rallentamento B) una stasi C) un incremento nel benessere. Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo, poiché sperimenterebbe una perdita di profitti del secondo ordine.

III. 12. A) Tuttavia B) Sebbene C) Dunque questa esternalità comporti un livello di equilibrio della produzione troppo basso, essa non implica che la moneta sia non neutrale in assenza di costi associati a variazioni di prezzi. Supponiamo invece che produttori supportino dei costi di aggiustamento dei prezzi. Tali costi 13. A) possono B) devono C) erano soliti essere molto bassi, e questo viene sottolineato dal ricorso al termine “costi di listino”. Possono comunque includere più dei semplici costi fisici della stampa di nuovi listini o di nuove etichette di prezzo. 14. A) Torniamo B) Torneremo C) Torneremmo a considerare più in dettaglio la loro natura.

IV. Più precisamente, si 15. A) supponga B) supponeva C) supporrebbe che ogni produttore supporti costi di aggiustamento dei prezzi del secondo ordine. Invece di un piccolo decremento dei prezzi data la moneta nominale, consideriamo un piccolo aumento della moneta nominale dato 16. A) un B) il C) Ø* livello generale dei prezzi. Si verifica un aumento del primo ordine della produzione e del benessere, ma ogni produttore ha solo un incentivo del secondo ordine ad aumentare il proprio prezzo. In assenza di costi di listino 17. A) il sistema B) industria C) l'economia tornerebbe al livello iniziale di produzione con prezzi meno elevati. Ma la presenza di costi di listino del secondo ordine previene questo aggiustamento, almeno fintanto che i costi sono superiori alla perdita di profitti associata al mancato adeguamento dei prezzi. Questo è il punto chiave della questione: se bassi costi di listino rendono ottimale per i produttori non cambiare i prezzi a fronte di cambiamenti della domanda, i prezzi nominali non si aggiustano, e la

variazione nello stock di moneta nominale influenza la produzione ed esercita effetti del primo ordine sul benessere.

V. Questa argomentazione assume come dato il fatto che i produttori che non aggiustano i prezzi, aumentino il livello di produzione per soddisfare la domanda. Ma per piccole variazioni della moneta nominale, questo deve essere vero: i prezzi sono inizialmente superiori ai 18. A) costi marginali B) costi globali C) costi nominali, cosicché i produttori vorranno aumentare la produzione anche se non aggiustano i prezzi. Nella Figura 8.1. i produttori aumentano il livello di produzione fino al punto *B*, con un livello dei prezzi immutato.

VI. Il risultato è che in presenza di costi di aggiustamento dei prezzi, questi possono non modificarsi, e la moneta nominale può influenzare la produzione. La parte interessante è che i costi di aggiustamento dei prezzi sufficienti a evitarne le modificazioni possono essere molto più piccoli degli effetti sul benessere 19. A) i quali B) cui C) da cui derivano dal non aggiustamento dei prezzi stessi. Questo risultato è stato sottolineato da Akerlof e Yellen, che ne misero in luce la generalità: in ogni economia con distorsioni, la decisione di un individuo di reagire o meno a una modifica dell'ambiente in cui opera provoca una perdita privata esclusivamente del secondo ordine; ma la presenza di distorsioni rende probabile il fatto che gli effetti di benessere 20. A) sono B) erano C) siano del primo ordine.

Ø* = nessun articolo

1. L'idea principale del paragrafo I è

- A) l'inefficienza della concorrenza monopolistica
- B) la differenza tra concorrenza monopolistica e concorrenza perfetta
- C) come misurare il benessere

2. Nel paragrafo II, i produttori in concorrenza monopolistica

- A) non sono interessati a ridurre i prezzi
- B) hanno ogni interesse a ridurre i prezzi
- C) hanno un forte incremento di profitti

3. Secondo il paragrafo IV, con i costi di listino

- A) esiste una relazione tra prezzi e domanda
- B) esiste una relazione tra scorte di moneta nominale, produzione, benessere
- C) i prezzi vengono aggiustati

4. Nel paragrafo VI, i costi di aggiustamento dei prezzi

- A) possono avere un effetto limitato sul benessere
- B) possono avere un effetto duraturo sul benessere
- C) di sicuro non modificano i prezzi

Item difficulties: Text B

B3Q1

There were eight 20 grammatical MCQs to which all subjects answered correctly, therefore, I decided to choose randomly one among the eight mentioned. Thus, B3Q1 – $m=1.00$ which I decided to analyse compared to B3Q5 – $m=0.71$ and B3Q9 – $m=0.27$ – was one on which the subjects scored highest, as shown below in the box extracted from Table 5.14:

	Valid n	Mean	Std.dev.
B3Q1	15	1.00	0.00

In this MCQ the subjects had to decide which was the correct finite verb tense from **1. A) situerà B) si situerebbe C) si situa** proposed in paragraph I:

I. In che modo l'equilibrio monopolistico differisce da quello concorrenziale? Se ogni produttore agisse sulla base di criteri concorrenziali **l'equilibrio** **1. A) situerà B) si situerebbe C) si situa** nel punto di intersezione tra la curva del costo marginale e la curva di domanda. Dato che la curva di domanda deve passare per *B*, questo significa che in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate: il livello di produzione sarebbe maggiore e il livello dei prezzi inferiore. Si noti che tutti i produttori hanno lo stesso grado di potere monopolistico: quest'ultimo quindi non ha effetti sul prezzo relativo dei beni prodotti. La concorrenza monopolistica invece influisce sul livello dei prezzi, che risulta più elevato rispetto a quanto avviene in concorrenza perfetta. Il benessere, misurato dal surplus di consumatori e produttori è più elevato in concorrenza perfetta. In concorrenza monopolistica la moneta è neutrale, esattamente come in concorrenza perfetta. Ci chiederemo cosa succede se i *price-setters* sopportano dei costi quando modificano i loro prezzi. Prima però sarà utile riformulare l'inefficienza di un sistema di concorrenza monopolistica in termini di esternalità pecuniarie – o di “domanda aggregata”.

The high mean $m=1.00$ on this MQ corresponding to the correct verb tense chosen – **si situerebbe** (**would be**) – indicates, as already mentioned, that the subjects considered a finite verb to carry a marker of tense; that is, the actions and states named by the verb are viewed as having a connection with the hypothetical condition of equilibrium expressed in the rheme by the past subjunctive - **se ogni produttore agisse** (if each producer **acted**) – following the theme in the interrogative form: In che modo l'equilibrio monopolistico differisce da quello concorrenziale? (How does the monopolistically competitive equilibrium differ from a competitive equilibrium?).

Furthermore, the first hypothetical proposition is introduced by the subordinator **se** (if) which is linked cataphorically to the present conditional which follows: **si situerebbe** (would be) – l'equilibrio si situerebbe nel punto di intersezione tra la curva del costo marginale e la curva di domanda (the equilibrium would be at the intersection of the marginal cost and demand curves). The repetitive use of the same verb tense - **sarebbero, sarebbe** (would be) – through which the ground for the argument unfolds, thus creates a continuum of hypothetical conditions through which the argument unfolds creating a semantic unit of meaning referring to the different forms of competitive equilibrium.

Item difficulties: Text B

B3Q5

The mean score **m=0.71** for question B3Q5 – in the box below extracted from Table 5.14 – meant that it was considered a medium difficulty item, since the mean score for the easiest item was $m=1.00$ and that for the most difficult one $m=0.27$.

	Valid n	Mean	Std.dev.
B3Q5	14	0.71	0.7

In this MCQ the subjects had to decide which was the correct lexical item – A) consumatori B) dettaglianti C) investitori – from those proposed in paragraph I:

I. In che modo l'equilibrio monopolistico differisce da quello concorrenziale? Se ogni **produttore** agisse sulla base di criteri concorrenziali l'equilibrio si situerebbe si situa nel punto di intersezione tra la curva del costo marginale e la curva di **domanda**. Dato che la curva di **domanda** deve passare per *B*, questo significa che in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate: il livello di produzione sarebbe maggiore e il livello dei **prezzi** inferiore. Si noti che tutti i **produttori** hanno lo stesso grado di potere monopolistico: quest'ultimo quindi non ha effetti sul prezzo relativo dei beni prodotti. La concorrenza monopolistica invece influisce sul livello dei prezzi, che risulta più elevato rispetto a quanto avviene in concorrenza perfetta. Il benessere, misurato dal surplus di **5. A) consumatori B) dettaglianti C) investitori** e **produttori** è più elevato in concorrenza perfetta. In concorrenza monopolistica la moneta è neutrale, esattamente come in concorrenza perfetta. Ci chiederemo cosa succede se i *price-setters* sopportano dei costi quando modificano i loro prezzi. Prima però sarà utile riformulare l'inefficienza di un sistema di concorrenza monopolistica in termini di esternalità pecuniarie – o di “domanda aggregata”.

By taking a close look at the breakdown analysis, (§Appendix L:Table 5.37), option **A) consumatori** (consumers) was the most correctly selected answer. This choice might have been determined by the repetition of the terms **produttore** (producer), **domanda** (demand) and **livello dei prezzi** (price level) which are linked to **consumatori** (consumers), who influence demand and prices. However, some subjects wrongly chose **C) investitori** (investors) as their correct answer. Such a choice revealed, on one hand, their lack of basic economics conceptual knowledge, since demand and price level are notably linked to consumers or customers; on the other, the choice signals a difficulty, on the part of the subjects, to use their cognitive and metacognitive reading strategies to link the propositions through the paragraph in order to create units of meaning.

Item difficulties: Text B

B3Q9

The lowest mean score, among the twenty grammatical MCQs for text B, was for B3Q9 - **m=0.27** - as can be seen below in the box extracted from Table 5.14.

	Valid n	Mean	Std.dev.
B3Q9	15	0,27	0,46

In this MCQ the subjects had to decide which was the correct lexical item from those proposed in paragraph II:

II. Questa esternalità sorge in quanto una diminuzione dei prezzi nominali di un singolo produttore provoca due effetti. Innanzitutto essa aumenta la domanda per il bene di quel produttore; in secondo luogo, diminuendo il livello generale dei prezzi, incrementa il livello delle scorte monetarie reali, e quindi favorisce un aumento della domanda e della produzione dei beni di tutti gli altri produttori. In equilibrio, i prezzi sono tali che il primo effetto sui profitti è 9. A) marginale B) pari a zero C) altamente positivo al primo ordine: ogni produttore non ha nessun incentivo a cambiare i propri prezzi. Ma dato che in concorrenza monopolistica la produzione è inizialmente al di sotto del livello socialmente ottimo, il secondo effetto produce un incremento nel benessere. Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo, poiché sperimenterebbe una perdita di profitti del secondo ordine.

The breakdown analysis, (§Appendix L: Table 5.37), for B3Q9 indicated that the subjects had predominantly wrongly chosen option C) altamente positivo (highly positive). This suggests that the majority of subjects might have been guessing or might have not referred the HyperTheme - In equilibrio, i prezzi sono tali che il primo effetto sui profitti è pari a zero al primo ordine (In equilibrium prices are such that the first effect on profit is **equal to zero** to a first order) - cataphorically to the hyperRheme - ogni produttore non ha nessun incentivo a cambiare i propri prezzi (each producer has no incentive to change her price) - which contradicts the possibility of prices having a highly positive impact on profit in a state of equilibrium.

Conversely, the choice of option A) marginale (marginal) was to be excluded, as the concept - no producer is encouraged to reduce her prices - is repeated in the conclusion introduced by the adversative conjoiner Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo (But no individual producer has an incentive to reduce her own price). The recurrency of the adversative conjoiner **ma** underlines an anaphoric contrast between the hyperTheme and hyperRheme whilst explaining the concept through the various steps of the argument which are related to one another, thus accumulating new information to form a continuity with what has preceded.

Item difficulties: Text B

B4Q2

Among the four informational MCQs, the one with the highest mean score, thus corresponding to the easiest item, was B4Q2 - $m=1.00$ - shown below in the box extracted from Table 5.14, whilst the mean score for the easiest item was $m=1.00$ and for the most difficult $m=0.20$.

	Valid n	Mean	Std.dev.
B4Q2	15	1,00	0,00

B4Q2 tested the comprehension of the subjects on whether producers in a monopolistic competition **A) non sono interessati a ridurre i prezzi (are not interested in reducing prices);** B) hanno ogni interesse a ridurre i prezzi (have every interest to reduce prices); C) hanno un forte incremento di profitti (have a high profit increase) in paragraph II

II. Questa esternalità sorge in quanto una diminuzione dei prezzi nominali di un singolo produttore provoca due effetti. Innanzitutto essa aumenta la domanda per il bene di quel produttore; in secondo luogo, diminuendo il livello generale dei prezzi, incrementa il livello delle scorte monetarie reali, e quindi favorisce un aumento della domanda e della produzione dei beni di tutti gli altri produttori. In equilibrio, i prezzi sono tali che il primo effetto sui profitti è pari a zero al primo ordine: ogni produttore non ha nessun incentivo a cambiare i propri prezzi. Ma dato che in concorrenza monopolistica la produzione è inizialmente al di sotto del livello socialmente ottimo, il secondo effetto produce un incremento nel benessere. Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo, poiché sperimenterebbe una perdita di profitti del secondo ordine.

The high mean score suggests that the subjects chose the correct answer by connecting option A with the concept expressed twice in the text, that is, in the hyperTheme - ogni produttore non ha nessun incentivo a cambiare i propri prezzi - and in the conclusion: Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo in derived information meaning. Thus the high score.

Item difficulties: Text B

B4Q1

Among the 4 informational MCQs, the one that was considered a medium difficulty item was B4Q1 with mean score - $m=0.60$ shown below in the box extracted from Table 5.14. The mean score for the easiest item was $m=1.00$ and the most difficult $m=0.20$.

	Valid n	Mean	Std.dev.
B4Q1	15	0,60	0,51

In B4Q1 the subjects had to understand whether the main idea was A) l'inefficienza della concorrenza monopolistica (the inefficiency of monopolistic competition); **B) la differenza tra concorrenza monopolistica e concorrenza perfetta (the difference between monopolistic competition and perfect competition)**; C) come misurare il benessere (ways of measuring welfare) in paragraph I:

I. In che modo l'equilibrio monopolistico differisce da quello concorrenziale? Se ogni produttore agisse sulla base di criteri concorrenziali l'equilibrio si situerebbe nel punto di intersezione tra la curva del costo marginale e la curva di domanda. Dato che la curva di domanda deve passare per *B*, questo significa che in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate: il livello di produzione sarebbe maggiore e il livello dei prezzi inferiore. Si noti che tutti i produttori hanno lo stesso grado di potere monopolistico: quest'ultimo quindi non ha effetti sul prezzo relativo dei beni prodotti. La concorrenza monopolistica invece influisce sul livello dei prezzi, che risulta più elevato rispetto a quanto avviene in concorrenza perfetta. Il benessere, misurato dal surplus di consumatori e produttori è più elevato in concorrenza perfetta. In concorrenza monopolistica la moneta è neutrale, esattamente come in concorrenza perfetta. Ci chiederemo cosa succede se i *price-setters* sopportano dei costi quando modificano i loro prezzi. Prima però sarà utile riformulare l'inefficienza di un sistema di concorrenza monopolistica in termini di esternalità pecuniarie – o di “domanda aggregata”.

The medium difficulty score for B4Q1 indicates that the subjects might have not connected the theme, in an interrogative form, which labels a discourse act in advance, and which will be satisfied in the immediate vicinity by the linear text (Samson 2005). In other words, the subjects were to expect two answers to the theme - In che modo l'equilibrio monopolistico differisce da quello concorrenziale? (How does the monopolistically competitive equilibrium differ from a competitive equilibrium?) – that forms the main idea of the paragraph.

Moreover two answers specifying the difference between the two forms of equilibrium were provided to the Q in the theme: in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate (equilibrium real money balances would be higher under perfect competition); and La concorrenza monopolistica invece influisce sul livello dei prezzi (Monopolistic competition affects, instead, the relative price of produced goods). The second answer to the Q in the theme includes an adverb that underscores an alternative condition to the first, therefore referring anaphorically to it. But this seems to have been ignored by the subjects, who, interestingly, considered wrongly this second answer as the main idea of paragraph by choosing option A that provides a partial answer to the Q in the theme.

Item difficulties: Text B

B4Q3

The lowest mean score among the four informational MCQs was B4Q3 – $m=0.20$ – as can be seen below in the box extracted from Table 5.14. The mean score for the easiest item was $m=1.00$ and for the intermediate difficulty one $m=0.60$.

	Valid n	Mean	Std.dev.
B4Q3	15	0,20	0,41

B4Q3 tested the subjects' comprehension on whether with menu costs A) esiste una relazione tra prezzi e domanda (there is a relation between prices and demand); **B) esiste una relazione tra scorte di moneta nominale, produzione, benessere** (there is a relation between nominal money, production, welfare); C) i prezzi vengono aggiustati (prices are adjusted) according to paragraph IV:

IV. Più precisamente, si supponga che ogni produttore supporti costi di aggiustamento dei prezzi del secondo ordine. Invece di un piccolo decremento dei prezzi data la moneta nominale, consideriamo un piccolo aumento della moneta nominale dato il livello generale dei prezzi. Si verifica un aumento del primo ordine della produzione e del benessere, ma ogni produttore ha solo un incentivo del secondo ordine ad aumentare il proprio prezzo. In assenza di costi di listino l'economia tornerebbe al livello iniziale di produzione con prezzi meno elevati. Ma la presenza di costi di listino del secondo ordine previene questo aggiustamento, almeno fintanto che i costi sono superiori alla perdita di profitti associata al mancato adeguamento dei prezzi. Questo è il punto chiave della questione: se bassi costi di listino rendono ottimale per i produttori non cambiare i prezzi a fronte di cambiamenti della domanda, i prezzi nominali non si aggiustano, e la variazione nello stock di moneta nominale influenza la produzione ed esercita effetti del primo ordine sul benessere.

The breakdown analysis, (§Appendix L: Table 5.37), revealed that the subjects scored low for B4Q3 because they chose wrongly as correct answer: A) esiste una relazione tra prezzi e domanda (there is a relation between prices and demand). They seem to have considered only the condition indicated by the conjunction **se (if)** - se bassi costi di listino rendono ottimale per i produttori non cambiare i prezzi a fronte di cambiamenti della domanda (**if** small menu costs make it optimal for producers not to change prices when demand changes) - and not the conclusion and/or consequence drawn from the arguments presented to support the hypothesis of a relation between nominal money, production and welfare.

These findings seem to confirm those found for test F, that is, a difficulty, on the part of the subjects, to construe meaning in texts with a complex syntactical structure and to infer information, although reading in their mother tongue.

As Halliday and Hasan (1976) argue, continuity is not just an interesting feature associated with text, but a necessary one in its interpretation. There have to be semantic resources for linking a sentence with what has gone before, to interpret cohesion. Since this linking is achieved through relations in meaning, what is in question is the set of meaning relations which are drawn on for the purpose of creating text. So, it is not the presence of a particular class of item that is cohesive, but the relation between one item and another (ibid.: 10-11).

In order to complete the item difficulties analysis, in my attempt to confirm if a relationship exists between the capacity to use grammatical and structural components whilst reading and construing meaning in Italian texts and when using the same components to derive meaning in the same text but in English, I analysed Text C. My aim was to verify if there was transfer between specific-domain knowledge in an Italian text and the comprehension of the same concepts in the same text in English.

Text C – English economics textbook excerpt

Text C - The excerpt, *Costs of changing prices and real effects on nominal money* (1060 words), was extracted from the English economics textbook: O. J. Blanchard and S. Fisher, *Lectures on Macroeconomics* and was the original version of excerpt B. Hence, it is a sample of expository text, belonging to the textbook genre, wherein the economist develops a thesis through a series of arguments with the aim of persuading his readers.

Like B, excerpt C focuses on changing prices and real effects of nominal money in a monopolistic competitive equilibrium and in a competitive equilibrium.

COSTS OF CHANGING PRICES AND REAL EFFECTS OF NOMINAL MONEY

I. How does the monopolistically competitive equilibrium differ from a competitive equilibrium? If each producer acted competitively, the equilibrium 1. A) would be B) will be C) would have been at the intersection of the marginal cost and demand curves. Since the demand curve must go through B, equilibrium real money balances would be higher under perfect competition: output would be higher and the price level lower. Note that because 2. A) some B) any C) all producers have the same degree of monopoly power, monopoly power has no effect on the relative price of produced goods. Monopolistic competition affects, instead, the relative price of goods in terms of money, the price level, which is 3. A) lower B) equal C) higher than under competition. Welfare, measured by 4. A) consumer B) client C) distributor and producer surplus, is higher under perfect competition. Under monopolistic competition money is neutral just as it is under perfect competition. We now ask what happens if price-setters face costs of changing prices. Before we turn to the costs of changing prices, it will be useful to recast the inefficiency of the monopolistically competitive economy as the result of a pecuniary – or “aggregate demand” – externality.

II. This externality arises because a decrease 5. A) in B) into C) at an individual producer's nominal price has two effects. First, 6. A) they B) it C) its decreases the demand for that producer's good; second, by decreasing the price level, it 7. A) increases B) increasing C) will increase real money balances, and thus increases demand and output for all other producers. In equilibrium prices are such that the first effect on profit is 8. A) highly positive B) marginal C) equal to zero to a first order: each producer has no incentive to change her price. But, because output is initially below its 9. A) socially optimal level B) level socially optimal C) optimal socially level under monopolistic competition, the second effect leads to an 10. A) decrease B) instability C) increase in welfare. But no individual producer has an incentive to decrease her own price given other prices, since she would experience a second-order loss in profit.

III. 11. A) Thus B) Although C) Because of this externality leads to too low an equilibrium level of output, it does not imply that money is nonneutral in the absence of costs of changing prices. Suppose, however, that producers face costs of changing prices. The costs 12. A) must B) would C) may be small, as is emphasised by calling them "menu costs". They may, however, include more than just the physical costs of printing new menus or changing labels, and we 13. A) return B) will return C) would return to consider their nature later.

IV. More precisely, 14. A) assuming B) assume C) assumed that each producer faces second-order costs of changing prices. Now, instead of a small decrease in the price level given nominal money, consider a small increase in nominal money given 15. A) the B) a C) Ø* price level. Output and welfare increase to a first order, but each producer has only a second-order incentive to increase her price. Absent menu costs, the 16. A) warehouse B) economy C) economics would return to the initial level of output with higher prices. But second-order menu costs, as long as they are larger than the second-order loss in profit associated with not changing the price, will prevent this adjustment. 17. A) That B) These C) This is the key point: if small menu costs make it optimal for producers not to change prices when demand changes, nominal price will not adjust, and the change in nominal money will affect output and have a first-order effects on welfare.

V. This argumentation takes as given that producers who do not adjust prices will accommodate the higher level of demand so that output will increase. But for small changes in nominal money, this must indeed be true: price initially exceeds 18. A) marginal B) global C) intangible cost so that producers will willingly increase output even if they do not adjust prices. In figure 8.1 producers will be willing to increase output up to point *B* at unchanged prices.

VI. The result is that in the presence of costs of changing prices, prices may not adjust, and nominal money may affect output. The interesting part is that costs of changing prices that are sufficient to prevent such adjustment may be far smaller than the welfare effects – positive or negative – 19. A) which B) who C) whose follow from nonadjustment of prices. This point was first made by Akerlof and Yellen who emphasised its generality: in any economy with distortions the decisions by one individual to react or not to react to a change in his environment entails only a second-order private loss; the presence of distortions, however, makes it likely that the effects on welfare 20. A) will be B) were C) will have been of first order.

Ø*= no article

1. The main idea of paragraph I is

A) how to measure welfare

B) the inefficiency of monopolistic competition

C) the divergence between purely competitive and monopolistically competitive equilibrium

2. In paragraph II, producers in a monopolistic competition

A) are interested in reducing their prices

B) are not interested in reducing their prices

C) have a high increase of profits

3. According to paragraph IV, with menu costs
- A) prices are adjusted
 - B) a relation between demand and price is created
 - C) a reciprocal influence is created between nominal money, output and welfare
4. In paragraph VI, the costs of changing prices
- A) do not certainly modify prices
 - B) may have an effect on welfare
 - C) may have a long-term effect on welfare

Item difficulties: Text C

C5Q4

Among the 20 grammatical MCQs, C5Q4 was the MCQ on which the subjects scored highest: $m=1.00$, as shown below in the box extracted from Table 5.14, compared to C5Q18 $m=0.67$ and C5Q8 $m=0.20$:

	Valid n	Mean	Std.dev.
C5Q4	15	1,00	0,00

C5Q4 tested the knowledge of the subjects on the correct lexical item from the options 4. A) **consumer** B) client C) distributor in paragraph I:

I. How does the monopolistically competitive equilibrium differ from a competitive equilibrium? If each producer acted competitively, the equilibrium would be at the intersection of the marginal cost and demand curves. Since the demand curve must go through *B*, equilibrium real money balances would be higher under perfect competition: output would be higher and the price level lower. Note that because all producers have the same degree of monopoly power, monopoly power has no effect on the relative price of produced goods. Monopolistic competition affects, instead, the relative price of goods in terms of money, the price level, which is higher than under competition. Welfare, measured by 4. A) **consumer** B) client C) distributor and producer surplus, is higher under perfect competition. Under monopolistic competition money is neutral just as it is under perfect competition. We now ask what happens if price-setters face costs of changing prices. Before we turn to the costs of changing prices, it will be useful to recast the inefficiency of the monopolistically competitive economy as the result of a pecuniary – or “aggregate demand” – externality.

The high mean $m=1.00$, corresponding to the choice of the correct lexical item – **consumer** – might have derived from recognising the lexical item as cognatedly related to the Italian term

Consumer	consumatore
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from the transfer of the economic concept of the relation between welfare, demand/consumers and production/producers to the text in English or from guessing. It is to be noted that in the Italian version of this excerpt – B – the subjects attained only a medium score on the same MCQ

that corresponded to an intermediate level of difficulty encountered in construing meaning in the subjects' L1.

Moreover, since the text was in Italian, I had assumed that it would have been easier for the Italian subjects to construe meaning. But my prediction was only partially correct and I think the finding might be associated to a deficiency in the subjects' basic economics conceptual knowledge given that demand and price level are notably linked to consumers.

Item difficulties: Text C

C5Q18

The mean score $m=0.67$ for question C5Q18 – in the box extracted from Table 5.14

	Valid n	Mean	Std.dev.
C5Q18	15	0,67	0,49

meant that it was considered a medium difficulty item, since the mean score for the easiest item was $m=1.00$ and that of the most difficult $m=0.20$. In this MCQ the subjects had to decide which was the correct lexical item from 18. A) **marginal** B) **global** C) **intangible** proposed in paragraph V:

V. This argumentation takes as given that producers who do not adjust prices will accommodate the higher level of demand so that output will increase. But for small changes in nominal money, this must indeed be true: price initially exceeds 18. A) **marginal** B) **global** C) **intangible** cost so that producers will willingly increase output even if they do not adjust prices. In figure 8.1 producers will be willing to increase output up to point B at unchanged prices.

From the breakdown analysis, (§Appendix L: Table 5.38), we can see that most subjects chose the correct answer A) **marginal**. They might have referred anaphorically to the theme: This argumentation takes as given that producers who do not adjust prices will accommodate the higher level of demand so that output will increase and to the conjunction **But**. This introduces the rheme with its contrastive information to the conclusion of the previous paragraph: if small menu costs make it optimal for producers not to change prices when demand changes, nominal price will not adjust, and the change in nominal money will affect output underlining that for small changes in nominal money producers will increase output even if they do not adjust prices.

Furthermore, in deriving meaning in the text, the subjects might have referred the lexical item – marginal - cataphorically to the figure illustrating that producers will be willing to increase output up to point B at unchanged prices. It is important to underline that some subjects might

have guessed their answer or remembered it from the Italian version read fifteen days earlier. Those who, by contrast, did not choose A) marginal as the correct option might have not only ignored the referential links between the various semantic units forming cohesive meaning in the text, but might have not identified the exophoric reference of the units to the concept of producers, prices and demand previously read in Italian.

Item difficulties: Text C

C5Q8

The mean score $m=0.20$ for question C5Q8 – in the box extracted from Table 5.14

	Valid n	Mean	Std.dev.
C5Q8	15	0,20	0,41

refers to what was evaluated as a difficult item, since the mean score for the easiest item was $m=1.00$ and that for the intermediate difficulty item $m=0.67$. In this MCQ the subjects had to decide which was the lexical item from A) highly positive B) marginal C) equal to zero proposed in paragraph II:

II. This externality arises because a decrease in an individual producer's nominal price has two effects. First, it decreases the demand for that producer's good; second, by decreasing the price level, it increases real money balances, and thus increases demand and output for all other producers. In equilibrium prices are such that the first effect on profit is 8. A) highly positive B) marginal C) equal to zero to a first order: each producer has no incentive to change her price. But, because output is initially below its socially optimal level under monopolistic competition, the second effect leads to an increase in welfare. But no individual producer has an incentive to decrease her own price given other prices, since she would experience a second-order loss in profit.

The breakdown analysis, (§Appendix L: Table 5.38), for C5Q8 highlighted that the subjects had predominantly chosen wrongly option B) marginal repeating in the text in English the wrong answer chosen for the same Q previously in Italian. In the latter the answer wrongly chosen had been: highly positive.

The finding, thus, seems to indicate that the subjects were likely to be guessing or they did not refer the HyperTheme – In equilibrium prices are such that the first effect on profit is **equal to zero** to a first order – cataphorically to the hyperRheme – each producer has no incentive to change her price. The latter contradicts the possibility of prices having a marginal or highly positive impact on profit in a state of equilibrium.

The choice of option **B) marginal** was to be excluded as the concept that no producer is encouraged to reduce her prices is repeated in the conclusion, which is introduced by the adversative conjoiner **But** no individual producer has an incentive to decrease her own price. The repetition of the adversative conjoiner **ma (but)** underlines an anaphoric contrast between the hyperTheme and hyperRheme whilst the writer develops the concept through the various steps, related to one another, by accumulating new information and forming a continuity with what has preceded, thus creating a cohesive text.

Item difficulties: Text C

C6Q4

Among the four informational MCQs, the one with the highest mean score, thus corresponding to the easiest item, was C6Q4 – **m=0.87** – shown below in the box extracted from Table 5.14, whilst the mean score for the most difficult MCQ was C6Q2 – **m=0.35**. I did not consider C6Q1 – **m=0,73** as an intermediate level score because it was too close a percentage to the highest mean which was actually only 2 points above mean ≥ 0.85 considered easy by Ebel (1972):

	Valid n	Mean	Std.dev.
C6Q4	15	0.87	0.35

C6Q4 tested the comprehension of the subjects on whether the costs of changing prices A) do not certainly modify prices; **B) may have an effect on welfare**; C) may have a long-term effect on welfare, in paragraph VI:

VI. The result is that in the presence of costs of changing prices, prices may not adjust, and nominal money may affect output. The interesting part is that costs of changing prices that are sufficient to prevent such adjustment may be far smaller than the welfare effects – positive or negative – which follow from nonadjustment of prices. This point was first made by Akerlof and Yellen who emphasised its generality: in any economy with distortions the decisions by one individual to react or not to react to a change in his environment entails only a second-order private loss; the presence of distortions, however, makes it likely that the effects on welfare will be of first order.

The mean score suggests that most subjects might have chosen the correct answer, **B**, by connecting the lexical item welfare in the Q to its repetition in the conclusion of the argument. The definition of the effects of distortions in an economy represents the conclusion and it contains an explicit reference to the relation between distortions and welfare: the presence of distortions, however, makes it likely that the effects on welfare will be of first order. Otherwise the subjects might have guessed the answer by recalling the correct answer to the same Q in the Italian excerpt administered two weeks earlier.

Once again, as for the scores on the twenty grammatical and structural MCQs in the Italian and English excerpts, the subjects scored similarly on C6Q4 and on B4Q4, pointing out a two fold issue: a lack of basic economics conceptual knowledge in Italian and the lack of capacity to activate a bidirectional transfer of the knowledge between Italian and English.

Item difficulties: Text C

C6Q2

The lowest mean score, among the four informational MCQs, was C6Q2 - **m=0.67** – as can be seen below in the box extracted from Table 5.14.

	Valid n	Mean	Std.dev.
C6Q2	15	0,67	0,49

C6Q2 tested the comprehension of the subjects on whether producers in a monopolistic competition A) are interested in reducing their prices; **B) are not interested in reducing their prices**; C) have a high increase of profits, in paragraph II:

II. This externality arises because a decrease in an individual producer's nominal price has two effects. First, it decreases the demand for that producer's good; second, by decreasing the price level, it increases real money balances, and thus increases demand and output for all other producers. In equilibrium prices are such that the first effect on profit is equal to zero to a first order: each producer has no incentive to change her price. But, because output is initially below its socially optimal level under monopolistic competition, the second effect leads to an increase in welfare. But **no individual producer has an incentive to decrease her own price given other prices**, since she would experience a second-order loss in profit.

The mean for this MCQ underlines that not all subjects seemed to have realised the link between the ground - each producer has no incentive to change her price - and the conclusion - no individual producer has an incentive to decrease her own price given other prices which reiterates the former.

Furthermore, the breakdown analysis, (§Appendix L: Table 5.38), highlighted that an equal number of subjects wrongly chose A) are interested in reducing their prices or C) have a high increase of profit, although there are no such references in the paragraph. Hence their choice was purely based on guessing.

Moreover, it is interesting to notice that the subjects on this same MCQ in the Italian translated version, i.e., B4C2, attained the highest score, **m=1.00**, whereas in this version they attained only **m=0.67**. Such a lower score suggests, once again, that the subjects might have had difficulties

transferring their specific domain knowledge from Italian to English and vice versa whilst reading the same text or might have just guessed the answers.

5.6 Main study – Questionnaire 1, Questionnaire 2. Quantitative analysis

5.6.1 Questionnaire 1

In response to the final considerations in the previous section and the RQs (4-7), I measured the subjects' cognitive and metacognitive reading strategies. A questionnaire in Italian – **Q1** (§Appendix H) – was administered to the subjects, after all the tests, with the multi-scope of investigating:

- (i) which particular cognitive/meta-cognitive strategies the subjects implemented whilst reading in Italian and in English;
- (ii) the frequency of the strategies applied;
- (iii) the possible different/similar strategies applied whilst reading in English or Italian.

Q1 included 59 closed multiple choice questions, the answers to which were rated according to the Likert attitudinal scale which placed the respondent's answer on an attitude continuum from 1 to 5, i.e., from the least to the most frequent strategy implemented. **Q1** included two sections: the first, related to reading a generic/specific-domain text in Italian (items 01-22); the second, to reading a generic/specific-domain text in English (items 23-59). Each section was subdivided into two further sections:

- A. cognitive strategies applied to reading a text in Italian;
- B. metacognitive strategies applied to reading a text in Italian;
- C. cognitive strategies applied to reading a text in English;
- D. metacognitive strategies applied to reading a text in English.

For contrastive analysis purposes, section A was followed by C; section B by D.

A. Cognitive strategies applied to reading a text in Italian

The data collected from section A of Questionnaire1 were analysed by descriptive statistics to attain the mean, minimum scores, maximum scores and standard deviation generated by the intact sample of subjects n=32, responding to each one of the five distracters (1-5 Likert scale) supplied for items 1 to 10, as Table 5.16 below shows.

Keeping in mind the aims of this study and the RQs, it seemed important to gain a better understanding of the nature and frequency of the cognitive/metacognitive strategies used by the subjects whilst reading in L1 and EFL by taking into account also a breakdown analysis, as Table 5.21 below illustrates.

Table 5.16 Descriptive Statistics. Questionnaire 1.
Cognitive strategies applied to reading in Italian. Qs 01-10.

	Valid n Subjects	Mean	Minimum Scores	Maximum Scores	Std.dev.
Q1	31	4.35	3	5	0.66
Q2	31	4.42	3	5	0.56
Q3	31	4.39	3	5	0.62
Q4	31	4.06	2	5	0.77
Q5	31	4.48	2	5	0.85
Q6	32	4.47	2	5	0.67
Q7	32	2.91	1	5	1.55
Q8	32	3.16	1	5	1.19
Q9	32	3.91	1	5	1.17
Q10	32	4.31	2	5	0.69

Table 5.17 Cognitive strategies applied to reading in Italian.
Breakdown Questionnaire 1. Qs 01-10.

Question no.		Never	Nearly never	Do not know	Nearly always	Always
1		0%	0%	10%	45%	45%
2		0%	0%	3%	45%	52%
3		0%	0%	6%	48%	45%
4		0%	6%	6%	61%	26%
5		0%	6%	3%	26%	65%
6		0%	3%	0%	44%	53%
7		25%	25%	6%	22%	22%
8		9%	25%	16%	41%	9%
9		6%	9%	6%	44%	34%
10		0%	3%	3%	53%	41%

From a comparison of the item means and attitudes in Tables 5.20 and 5.21, 65% always “re-read what not understood in a text” - item Q5 (**m=4.48**); 53% always and 44% nearly always “read slower when a text was difficult” item Q6 (**m=4.47**); 52% always and 45% nearly always used “conceptual knowledge on the subject” – item Q2 (**m=4.42**) and 48% nearly always

connected their “ world knowledge to conceptual knowledge to construe meaning” - Q3 (**m=4.39**).

A lower mean was registered for item Q1 (**m=4.35**) – “use of world knowledge” and for item Q10 (**m=4.31**) referring to 53% nearly always using “conceptual, world, lexical and grammatical knowledge” whilst reading a generic language or a specific-domain text in Italian. On item Q4, 61% declared they nearly always “paused to reflect on what they were reading”, followed by a non-committal 6%, which can be evaluated negatively, denoting uncertainty in approaching a text.

By converse, item Q7 (**m=2.91**), shows a sudden mean drop linked to 44% nearly always/always “reading aloud a difficult text” with a 6% not taking a stance, thus suggesting that, although the subjects read in their primary language, nearly 50% **did not read automatically** but implemented a cognitive strategy to aid their reading.

The result suggests a relation with the relatively low reading ability levels in Italian which emerged from the pilot study. For item Q8 (**m=3.16**) 50% “guessed the meaning of unknown words in an Italian text” but approximately 50% did not. For item Q9 (**m=3.91**), 44% nearly always, 34% always, but 21% (non committals incl.) did not “use grammatical and lexical knowledge to construe meaning in an Italian text”.

The most frequent cognitive strategy used was “re-reading what is not understood in a text” item Q5 (**m=4.48**) and “reading slower when a text is difficult” item Q6 (**m=4.47**). The third and fourth most frequently chosen attitudes were “connecting world knowledge to conceptual knowledge” item Q3 (**m=4.39**), and “using conceptual, world, lexical and grammatical knowledge together” item Q10 (**m=4.31**).

The scores attained on the informational tests B4 and F6, however, seem to contradict the high mean of item Q10 in that the subjects misused their cognitive skills. By contrast, the lower scores on item Q9 (**m=3.91**) “using grammatical and lexical knowledge to construe meaning” confirm the low scores attained on the grammatical and structural part of the Italian tests B and F regarding choosing verb tenses, modal verbs and lexical items. The lower readability level attained on the two Italian complex texts suggests a limited use of cognitive strategies.

C. Cognitive strategies applied to reading a text in English

The same procedures were followed for the data collected from section C of Q1, in order to identify the cognitive strategies implemented whilst reading generic and specific-domain texts in English, and to verify any different/similar strategies applied whilst reading in English; Table 5.18 below lists the means, minimum/maximum scores, standard deviation per item; Table 5.23 the breakdown data.

Table 5.18 Descriptive Statistics. Questionnaire 1.
Cognitive strategies applied to reading a text in English Qs 23-32.

	Valid n Subjects	Mean	Minimum Scores	Maximum Scores	Std.dev.
Q23	32	4.13	2	5	0.71
Q24	32	4.34	3	5	0.60
Q25	32	3.88	2	5	0.83
Q26	32	4.69	4	5	0.47
Q27	31	2.87	1	5	1.45
Q28	32	4.25	1	5	0.92
Q29	32	4.59	2	5	0.67
Q30	32	3.31	1	5	1.31
Q31	32	4.19	2	5	0.82
Q32	32	4.31	2	5	0.74

Table 5.19 Cognitive strategies applied to reading texts in English.
Breakdown Questionnaire 1. Qs 23-32.

Question no.	Never	Nearly never	Do not know	Nearly always	Always
23	0%	3%	9%	59%	28%
24	0%	0%	6%	53%	41%
25	0%	9%	13%	59%	19%
26	0%	0%	0%	31%	69%
27	16%	39%	10%	13%	23%
28	3%	3%	3%	47%	44%
29	0%	3%	0%	31%	66%
30	13%	22%	0%	53%	13%
31	0%	6%	6%	50%	38%
32	0%	3%	6%	47%	44%

The score from both tables above indicate that “reading slower when the text is unclear” item Q26 (**m=4.69**) was perceived as the most important cognitive strategy to use, followed by “re-

reading what not understood in a text” item Q29 ($m=4.59$). The third and fourth most frequently chosen attitudes were “referring to conceptual knowledge whilst reading an economics text in English” item Q24 ($m=4.34$) and “using together conceptual, world, lexical and grammatical knowledge” item Q32 ($m=4.31$). By contrast, the strategy relatively less frequently used was “reading aloud an unclear text”.

All choices were consistent with those of section A, although the relative means were higher in section B indicating the need for stronger cognitive support to decode a text in English. This is signalled by a higher number of subjects using “their grammatical and lexical knowledge” item Q31 ($m=4.19$) and “devoted attention to specialised lexis whilst reading an economics text” in English item Q25 ($m=3.88$) to derive meaning. Thus, a consistent pattern emerges from the first four most frequent cognitive strategies chosen in both sections A and B summarised in Tables 5.20 and 5.21 below.

Table 5.20 Most frequent cognitive strategies applied to reading a text in Italian

Question number	Mean	Cognitive strategy	Nearly Always	Always
Q5	4.48	Re-reading what is not understood in a text	26%	65%
Q6	4.47	Reading slower when a text is difficult	44%	53%
Q3	4.39	Connecting world knowledge to conceptual knowledge	48%	45%
Q10	4.31	Using conceptual, world, lexical and grammatical knowledge together	53%	41%

Table 5.21 Most frequent cognitive strategies applied to reading a text in English

Question number	Mean	Cognitive strategy	Nearly Always	Always
Q26	4.69	Reading slower when a text is not understood	31%	69%
Q29	4.59	Re-reading what is not understood in a text	31%	66%
Q24	4.34	Referring to conceptual knowledge whilst reading an economics text	53%	41%
Q32	4.31	Using conceptual, world, lexical and grammatical knowledge together	47%	44%

As both tables above indicate, the items, apart Q24, are the same, although characterised by a mean and percentage variance. Indeed, the percentages of the cognitive strategies **always** used

tend to be higher whilst reading in English, thus signalling the need for conscious processing of the text.

The scores, however, highlighted low reference to grammatical and lexical knowledge in English, which, on one hand, contradicts the need to monitor one's reading activity; on the other, it confirms the low scores on the grammatical and structural tests (C, D, E, G) in English, in the pilot and main study. A remarkable note is provided by the choice of the *nearly always* scale, as illustrated in Tables 5.19, 5.20 and 5.21 above, indicating a certain degree of uncertainty in applying the necessary cognitive reading strategies.

B. Metacognitive strategies applied to reading a text in Italian

The same descriptive statistics and frequency breakdown were applied to the data collected from section B on the metacognitive strategies applied whilst reading texts in Italian. Tables 5.22 and 5.23 below provide the frequency and nature of the strategies used and their differences.

Table 5.22 Descriptive Statistics. Questionnaire 1.
Metacognitive strategies applied to reading a text in Italian Qs 12-22

	Valid n Subjects	Mean	Minimum Scores	Maximum Scores	Std.dev.
Q12	32	3.63	1	5	0.83
Q13	32	4.09	2	5	0.73
Q14	32	3.94	2	5	0.84
Q15	32	3.63	2	5	0.94
Q16	32	4.06	2	5	0.80
Q17	32	2.94	1	5	1.01
Q18	32	4.09	2	5	0.86
Q19	32	1.94	1	5	0.88
Q20	32	3.97	2	5	0.78
Q21	32	3.31	2	5	0.86
Q22	32	3.31	1	4	0.78

**Table 5.23 Metacognitive strategies applied to reading texts in Italian.
Breakdown Questionnaire 1. Qs 10-22.**

Question no.	Never	Nearly never	Do not know	Nearly always	Always
11	3%	9%	3%	69%	16%
12	3%	6%	22%	63%	6%
13	0%	3%	13%	56%	28%
14	0%	6%	19%	50%	25%
15	0%	19%	13%	56%	13%
16	0%	6%	9%	56%	28%
17	6%	31%	28%	31%	3%
18	0%	9%	3%	56%	31%
19	28%	59%	6%	3%	3%
20	0%	9%	3%	69%	19%
21	0%	22%	28%	47%	3%
22	0%	3%	9%	41%	47%

In Tables 5.22 and 5.23 above, the scores for each distracter show that 56% nearly always, 28% always “activate their conceptual knowledge after reading the title and first line of a text” – item Q13 (**m=4.09**); 56% nearly always, 31% always “integrate visual representations in their reading” – item Q18 (**m=4.09**); 56% nearly always, 28% always “find the main points of a text” – item Q16 (**m=4.06**), and 69% nearly always, 19% always “continue reading for the gist of a text” – item Q20 (**m=3.97**).

However, lower means correspond to a higher fragmentation of responses. 50% nearly always, 25% always “activate both their world and conceptual knowledge related to the topic after reading the title of a text”, but 6% nearly never, 25% did not - item Q14 (**m=3.94**); 63% nearly always, 6% always “read the title and first lines of a text and anticipate its content” but 3% never, 6% nearly never and 22% did not know - item Q12 (**m=3.63**); 56% nearly always, 13% always, 19% nearly never and 13% did not know to recognise “textual features to classify a text as belonging to a genre” – item Q15 (**m=3.63**).

By contrast, 47% nearly always, 3% always, 22% nearly never and 28% did not know to “refer to conceptual knowledge to understand the gist of a text if something is unclear” - item Q21 (**m=3.31**). Very few 6%, though, “interrupt their reading if they do not understand something” - item Q19 (**m=1.94**). Scores plummeted to 31% nearly always, 3% always, 6% never, 31% nearly

never and 28% did not know to “use the syntactical construction of a text to construe meaning” - item Q17 ($m=2.94$).

D. Metacognitive strategies applied to reading a text in English

Similar analytical procedures were applied to the responses in section D of Questionnaire 1. The descriptive statistics in Table 5.24 below show the means, minimum/maximum scores and standard deviation for items Q33-Q59 in order to determine the most frequent metacognitive strategies adopted whilst reading generic and/or specific-domain texts in English.

Table 5.24 Descriptive Statistics. Questionnaire 1.
Metacognitive strategies applied to reading a text in English Qs 33-59.

	Valid n Subjects	Mean	Minimum Scores	Maximum Scores	Std.dev.
Q33	32	3.91	1	5	1.15
Q34	32	3.91	2	5	0.78
Q35	32	3.97	2	5	0.54
Q36	32	3.91	2	5	0.64
Q37	31	3.87	2	5	0.85
Q38	31	4.10	3	5	0.47
Q39	31	3.29	1	5	0.94
Q40	31	4.03	1	5	0.98
Q41	31	4.26	2	5	0.73
Q42	31	4.29	2	5	0.69
Q43	31	4.48	2	5	0.72
Q44	31	3.97	2	5	0.84
Q45	31	4.13	2	5	0.76
Q46	31	4.61	2	5	0.67
Q47	31	4.10	2	5	1.01
Q48	31	4.13	2	5	0.88
Q49	31	4.19	2	5	0.65
Q50	31	3.35	1	5	1.02
Q51	31	3.13	1	4	0.96
Q52	31	3.32	1	5	1.14
Q53	31	3.39	2	5	0.88
Q54	31	4.42	4	5	0.50
Q55	31	4.26	2	5	0.77
Q56	31	2.45	1	4	0.89
Q57	31	2.39	1	5	1.15
Q58	31	3.84	1	5	1.04
Q59	30	2.20	1	4	1.00

**Table 5.25 Metacognitive strategies applied to reading texts in Italian.
Breakdown Questionnaire 1. Qs 33-59.**

Question no.	Never	Nearly never	Do not know	Nearly always	Always
33	3%	16%	3%	44%	34%
34	0%	9%	6%	69%	16%
35	0%	3%	6%	81%	9%
36	0%	3%	16%	69%	13%
37	0%	10%	13%	58%	19%
38	0%	0%	6%	77%	16%
39	3%	16%	35%	39%	6%
40	3%	3%	16%	42%	35%
41	0%	3%	6%	52%	39%
42	0%	3%	3%	55%	39%
43	0%	3%	3%	35%	58%
44	0%	6%	16%	52%	26%
45	0%	6%	3%	61%	29%
46	0%	3%	0%	29%	68%
47	0%	10%	16%	29%	45%
48	0%	10%	3%	52%	35%
49	0%	3%	3%	65%	29%
50	3%	19%	26%	42%	10%
51	3%	29%	19%	48%	0%
52	6%	23%	13%	48%	10%
53	0%	19%	29%	45%	6%
54	0%	0%	0%	58%	42%
55	0%	6%	0%	55%	39%
56	0%	6%	61%	13%	19%
57	23%	42%	13%	19%	3%
58	3%	10%	13%	48%	26%
59	23%	50%	10%	17%	0%

Tables 5.24 and 5.25, above, indicate that “what is unclear is re-read” item Q46 (**m=4.61**) was perceived by 68% as always the most important metacognitive strategy to use, followed by 58% who always “relate concepts learnt in Italian to content of an economics text in English” item Q43 (**m=4.48**); 58% nearly always “connect concepts known in Italian to those in the text” item Q54 (**m=4.42**); 55% nearly always “reflect on textual content and its meaning” item Q42 (**m=4.29**).

Two items have similar means: “connect world knowledge to the topic read” item Q55 (**m=4.26**), and “connect information with that before it in the text” item Q42 (**m=4.26**). Related to this and to item 46 is “read before and after the unclear point in the text” item Q47 (**m=4.10**) as well as “find the main points in a text” item Q38 (**m=4.10**). In contrast, the strategies which

ranked lowest were “reading stops if something is not understood” item Q59 ($m=2.20$); “each word is translated” item Q57 ($m=2.39$) and “stop at every word” item Q56 ($m=2.45$).

Items referring to brainstorming ranked intermediately, as well as items that “classifying a text as to a genre” item Q37 ($m=3.87$), “proceed by reading paragraph by paragraph” item Q58 ($m=3.84$), “pay attention to grammatical structures” item Q50 ($m=3.35$), “derive meaning by recalling similar structures in Italian texts” item Q52 ($m=3.32$), “pay attention to the syntactical structure” item Q51 ($m=3.13$).

5.6.2 Questionnaire 2

The last data generating instrument to be administered to the subjects was Questionnaire 2 (§Appendix I) comprising seven sections with YES/NO answers on:

- (i) Reading habits.
- (ii) Reading motivations.
- (iii) Reading strategies and motivation at secondary school level.
- (iv) Reading strategies at university level.
- (v) Learning English in and/or outside university.
- (vi) English learning motivation.
- (vii) Opinion on English economics business courses and services in UNIFI-Faculty of Economics.

Its purpose was to achieve a firmer interpretation of the possible linkages between attitudinal and contextual factors and assist in the development of reading proficiency in EFL, in order to answer the research questions.

a) Reading habits

Table 5.26 below shows the breakdown analysis of the responses to items 1-5 on the subjects’ reading habits in English. Most subjects (52%) indicated they did not read in English and when they did it was “only texts required by the academic curriculum” (item 01). Furthermore, a majority, which varied from 60% to 73%, did “not to read any specialised texts” outside the academic context, thus indicating a preference for generic text types (items 2-4).

Table 5.26. Reading and Learning English in the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 1-5.

Item no.	Response = “No”	Response = “Yes”
1	52%	48%
2	60%	40%
3	73%	27%
4	70%	30%
5	69%	31%

b) Reading motivation

In Table 5.27 below the responses confirmed the reading habits analysed above, that is, most subjects (51%) did not “read in English to access specialised material” (item 6); instead (83%) “considered it useful to read generic texts in English downloaded from internet” (item 7). Table 5.31 below illustrates the items’ percentage breakdown.

Table 5.27. Reading and Learning English at the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 6-7.

Item no.	Response = “No”	Response = “Yes”
6	51%	49%
7	17%	83%

The findings on reading habits point out that the subjects read also extra curriculum material in particular generic texts in English. This preference was linked to their interest in text downloadable from internet. As a consequence, only a minority read specialised text types which could enhance their academic literacy development.

c) Reading strategies and motivation at secondary school level

Table 5.28 below provides the item breakdown for items 8-11 related to the reading strategies and motivation to read and learn in English at secondary school level. Most subjects (67%) indicated that they “learnt to apply reading strategies to texts in Italian” (item 8) as they “learnt to apply reading strategies to texts in English” (item 9).

The use of reading strategies in English appears to be linked to being “motivated to read and learn in English” (item 11). Only 33% “learnt to translate word by word to understand a text in English”.

Table 5.28. Reading and Learning English in the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 8-11.

Item no.	Response = “No”	Response = “Yes”
8	33%	67%
9	38%	63%
10	67%	33%
11	31%	69%

d) Reading strategies at university level

As to the strategies used whilst reading in English at a tertiary level, the breakdown analysis of items 12-21 in Table 5.29, below, illustrates that most subjects (92%) “referred to their economics/business concepts learnt in Italian” (item 17) and that 91% “tried to understand the aboutness of the text from its title” (item 14). These data are supported by 69% who “learnt to use reading strategies” (item 12) and by those who “used reading strategies in English which were not implemented whilst reading in Italian” (item 13).

The pattern which emerged in Questionnaire1, i.e., that specific strategies were adopted less than generic ones, was confirmed by 58% of subjects who “searched for keywords in paragraphs to comprehend the concepts expressed” whereas 42% did not (item 15). The percentage drops to only 33% who “tried to understand the semantic or verbal class the terms in the co-text belonged to” (item 16).

Remarkably, 58% said they “applied the reading strategies learnt in class when reading outside the academic context” (item 21) but a low 27% “first used reading strategies, then translated the text to feel assured” (item 19), followed by 22% who “referred only to their world knowledge whilst reading” (item 20). By contrast, 2% responded they “translated word by word the text” (item 18).

Table 5.29. Reading and Learning English at the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 12-21.

Item no.	Response = “No”	Response = “Yes”
12	31%	69%
13	34%	66%
14	9%	91%
15	42%	58%
16	67%	33%
17	8%	92%
18	98%	2%
19	73%	27%
20	78%	22%
21	42%	58%

The findings on the strategies used at secondary school level suggest that most subjects learnt to use reading strategies in Italian as well as in English and not to translate texts word by word, although evidence denies the latter. At university level the findings show a higher frequency of strategies used whilst reading in English than in Italian and confirm the results of Questionnaire

1, that is, a low use of specific reading strategies to derive meaning. The subjects appear to have a generic knowledge of reading strategies and/or a limited knowledge of their application and declare they refer to their conceptual knowledge, although the tests in the pilot and main study underlined a constrain on bi-modal Italian↔English conceptual transfer.

e) Learning English in and/or outside university

Table 5.30 below provides the breakdown of responses for items 22-30 regarding the attitude toward learning EFL in and/or outside the academic context. A high percentage (98%) of subjects were “favourable to learning more than a foreign language, in addition to English” (item 24) and 88% indicated they were “favourable to learning English as a foreign language” (item 23). Remarkably, 73% were “in favour of using English not as FL but as SL (second language) with Italian in/outside the academic context” (item 25).

However 52% of the subjects responded they “learnt English only during their lecture hours” (item 22) instead a minority, 48% responded they “learnt English also outside the academic context” (item 26) as well as those who did not “watch film/tv programmes in English” (item 27). Their most frequent access to English outside the academic context (88%) was by “listening to music with English texts” (item 28). Only 40% “interacted with friends in English” (item 30) and a low 31% “attended or would attend a course of English abroad” (item 29).

Table 5.30. Reading and Learning English at the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 22-30.

Item no.	Response = “No”	Response = “Yes”
22	48%	52%
23	13%	88%
24	2%	98%
25	27%	73%
26	52%	48%
27	51%	49%
28	13%	88%
29	69%	31%
30	60%	40%

The results clearly show that English is not a second language but a foreign language learnt in an academic environment. However the majority of subjects seem ready learn more than one foreign language although only a minority would like to learn English abroad, interact with foreigners or watch programme in English. A vast majority seems, furthermore, in favour of English becoming a second language in/out of the university, i.e., used interchangeably with

Italian in many contexts. This suggests a highly positive attitude of the subjects toward English and foreign cultures within an established European view.

f) English learning motivation

Strictly connected to the previous section are the results of items 31-39 regarding the frequency and motivations for learning English. Table 5.31 below illustrates the data breakdown.

Table 5.31. Reading and Learning English at the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 31-39.

Item no.	Response = “No”	Response = “Yes”
31	81%	19%
32	2%	98%
33	6%	94%
34	6%	94%
35	0%	100%
36	4%	96%
37	90%	10%
38	60%	40%
39	17%	83%

The positive attitude towards a foreign language was underlined by 100% who declared they learnt English “to travel abroad more easily” (item 35) followed by a relatively high 96% who “identified themselves with the Anglo-Saxon culture” (item 36). However a high 98% learnt English “to have more job opportunities in Italy or abroad” (item 32), and “to widen their cultural knowledge” as well as “to communicate with foreigners” (items 33, 34); another 83% considered that “everyone should be able to communicate in English” (item 39).

By contrast only 19% “learnt English due to a mandatory academic course” (item 31), thus understanding the need to increase learning English, although a low 40% associated speaking English to a social value and only 10% declared they “like the language” (item 37).

Thus, learning English is strongly related to instrumental motivations which are linked to job opportunities and/or to travelling. Such instrumental reasons are so strong that they are underlined by a deep dislike toward English as a language and to low esteem of the language as an added social value.

g) Opinion on English economics business courses and services in UNIFI – Faculty of Economics

The last section of Questionnaire 2 focussed on the subjects' opinions concerning the courses and services provided at the Faculty of Economics. Table 5.32 below shows the frequency and attitude response breakdown of items 40-50.

Table 5.32. Reading and Learning English at the Faculty of Economics – University of Florence – Italy. Questionnaire 2. Breakdown items 40-50.

Item no.	Response = "No"	Response = "Yes"
40	15%	85%
41	83%	17%
42	28%	72%
43	89%	11%
44	15%	85%
45	58%	42%
46	21%	79%
47	44%	56%
48	38%	63%
49	27%	73%
50	42%	48%

The data indicate that 85% of the subjects thought that "what they learnt in the English courses could be useful outside the academic context" (item 40) and that the "economic/business concepts in Italian were learnt by referring to and/or expanding already possessed specific concepts" (item 44). By contrast, only 11% indicated that they "acquired their economics/business concepts in Italian by rote" (item 43).

Moreover, satisfaction (79%) was expressed toward "their L1 curriculum" (item 46), but 73% would have preferred easier "access to Socrates exchange courses" (item 49) with a "higher number of hours per week dedicated to learning English" (item 42) – 72%. Relatively fewer subjects – 63% – were in favour of "economics/business courses lectured in English" (item 48) and 56% thought "the economics/business courses were too theoretical" (item 47).

Less than half of the total number of subjects thought "the Faculty offered services sufficient to aid them in their studies" (item 50) – 48% – and only 42% indicated that they "learnt economics/business concepts through practical applications to real cases". Such negative opinions were increased regards the English curriculum which was judged as "not satisfying future job exigencies" (item 41).

5.7 Main study – Interview 1, Interview 2

To complete the methodological triangulation of the data for this study, I included two semi-structured interviews of two key informants at the Faculty of Economics: Prof M. Bellandi - Political Economics, and Dr D. Colucci, Mathematics, (§Appendices J and K). They both provided additional information by answering freely to pre-set open-ended questions about their position in the context-reduced setting, their views on the topics on which they lectured, the meaning behind their actions, the methodologies implemented to convey academic/conceptual knowledge, their expectancies at the beginning and end of their courses and the features typifying the subjects.

5.7.1 Interview 1. Prof M. Bellandi - Political Economics

The analysis of Prof Bellandi's interview, firstly, typified the subjects attending his mandatory course. For the interviewee only 20% of the subjects possess a tertiary reading ability level allowing them to understand abstract economic concepts and attend successfully his course. The majority was said to be characterised by a pragmatic view on business issues. Most subjects are Business students with an aversion to abstract reasoning and knowledge on which the course is based.

The course, which is a part of the context-reduced environment of the Faculty, includes a theoretical and a practical part. Its final aim is to underscore how concepts are interrelated and how they can be applied, one step further to various hypotheses, by students. These, however, strongly resist being involved and having to reason autonomously, even if their involvement is usually limited to stating whether they understood the topic or not. Their attitude, thus, denotes they are used to an a-critical passive learning method – hence their preference for transmission lectures wherein not much effort is made to involve them actively during lectures.

Even visuals, which are essential for interpreting economic issues and improving their comprehension of theoretical quantitative relations and relations between economic variables, have limited effect in discouraging students from learning as much as possible by rote. The approach followed in the course is also applied in the post-course examination. This entails:

- (i) a cultural aspect, i.e., having developed a wide knowledge of micro and macro economics concepts to relate to real and operational economic problems;
- (ii) a practical aspect entailing the application of the concepts learnt to solve hypothetical problems.

The outcome of the course is that only a minority is able to reason at higher abstract levels by connecting concepts and developing further their conceptual knowledge. The majority studies only to barely pass the examination.

5.7.2 Interview 2. Dr. Colucci – Mathematics

Dr Colucci's interview reveals common features with those underlined by Prof Bellandi. Indeed, he asserts that only 20% of the subjects have a tertiary reading ability level, whilst the rest have difficulties understanding the concepts discussed. The low capacity to attain high levels of abstraction is closely connected to the complexity of mathematics, wherein fundamental concepts have to be gradually and constantly re-adapted to build on new blocks of knowledge. These features are emphasised by the subjects' unwillingness to build on concepts and achieve a formal structured method of reasoning.

For Dr Colucci, although encouraged, the subjects seem to reject any form of interaction in class. In addition to this, and similarly to the content of the political economics course, visuals are relevant and necessary to process several calculations before reaching a conclusion. The importance of such features is not understood and only a low number of subjects is eventually able to reflect rigorously, critically and in a controlled manner as mathematics requires.

5.8 Key findings emerging from data analysis

In sum, the key findings of the data analysis are the following:

In the pilot study, the reading performance mean scores, for the economics textbook excerpts in different levels of Italian – A and B - plummeted when the subjects/students read the Advanced level Italian text (B). Such scores dropped even further when the same subjects read the English version (C) of (B).

In particular, the scores were significantly lower on the grammatical and structural MCQs in the English version (C) than in the Advanced Italian (B), although the latter had been administered a fortnight earlier. On the contrary, the mean scores on the four informational MCQs were higher on the English version (C) than on the Italian one (B). This might suggest that a certain degree of guessing took place among the subjects also in applying their cognitive and metacognitive reading strategies.

The breakdown analysis highlighted a recurrent pattern across tests B and C. In the grammatical and structural tests of both texts, function words classified among the easiest or intermediate level item difficulty. By contrast, content words, i.e., modal verbs and lexical items relating to economics concepts, classified among the difficult items in both versions B and C, thus indicating a limited development of domain-specific conceptual knowledge primarily in Italian and consecutively in EFL.

As to the informational MCQs in both versions, easy items were identified among those requiring specific information in the texts, whereas difficulties arose when the subjects had to determine the main idea of a paragraph wherein inferring was involved.

In the main study, the subjects' reading proficiency/performance was tested across different genres and text types. The highest reading proficiency scores were attained on the generic English journalistic article (D), whereas the lowest resulted on the English textbook excerpt (E). Such a difference in scoring was linked to two different genres – the news and the textbook – and to different text types within the news genre: the generic English news article and the business news story.

The contrastive analysis of the mean scores for the English economics textbook excerpt (E) and the similar excerpt in Italian (F) underlined the subjects' difficulty to connect the various grammatical and structural components to derive meaning in the text in English. Instead, the scores on the informational tests were equally low for the English as well as the Italian textbook excerpt which, furthermore, resulted lower than those on the generic English news article (D).

Hence, two types of variances emerged from the mean score analyses:

- (i) an intra-genre variance, i.e., a variance within the textbook genre (economics textbook excerpts) and the news genre (different news text types);
- (ii) an inter-genre variance, i.e., a variance between the textbook genre and the news genre.

But it was **on the textbook genre that the subjects chose the highest number of wrong answers.**

Moreover, the variance in scores between the grammatical and structural English test (E) and the Italian test (F) paralleled those between the grammatical and structural Italian (B) and English (C) tests in the pilot study.

The breakdown analysis highlighted, in the generic English news article (D), the lexical items cognatedly related to Italian and the finite verb tenses as the easiest items; function words among the medium difficulty items; whilst lexical items and modal verbs, requiring reference to world knowledge and linkage of semantic units to derive meaning in the text, were identified as the most difficult. For the informational MCQs, the highest scores were attained on questions connected to specific information; the lowest on those related to inferring information.

This pattern not only paralleled the one in the pilot study, but was followed also when the genre changed, although with few item variations. In the English economics textbook excerpt (E) verb tenses that required a purely formal knowledge, and function words – e.g. quantifiers and possessive pronouns – were identified among the easiest items; function words necessitating more in-depth reading among the medium level difficulty; whereas lexical items, verb tenses and modal verbs were among the difficult items. As in the generic English news article (D), these were linked to specific domain conceptual knowledge and to the need to derive cohesive meaning in the text.

Similar choices were repeated in the Italian economics textbook excerpt (F) administered a few weeks later. In F, the easiest items were quantifiers, noun phrases and verb tenses that required a surface reading of the text. By contrast, the most difficult items were those linked to the choice of a modal verb or a lexical item. These were also the components that influenced negatively the

reading performance of the four informational MCQs. In other words, the more difficult questions were connected to a modal verb through which a concept was expressed.

Finally, the breakdown analysis confirmed in the business news story in English (G) the pattern followed in the previous tests. Subjects found it easier to choose among quantifiers, verb tenses, noun phrases or comparatives linked to surface reading. Difficulties arose with lexical items, modal verbs and deixis, that is, items related to grammatical features which, in relation to others, build cohesion in the text. As to the informational questions, the easiest ones referred, once again, to surface level information; the most difficult to a concept expressed by the use of a modal verb.

Hence, although the texts represented different genres and/or mode/text types, the subjects repeated a series of choices across the tests, thus forming a pattern which shed light on a number of components affecting their reading proficiency/performance.

In Questionnaire 1 the scores in section A and C – cognitive strategies used while reading in Italian and English - highlighted the subjects' low reference to grammatical and lexical knowledge whilst reading in Italian as well as in English, and a relatively generic use of cognitive reading strategies. In section B – metacognitive strategies used while reading in Italian - the scores indicated that conceptual knowledge is activated mostly at a generic level. In section D – metacognitive strategies used whilst reading in English - the descriptive statistics and breakdown analysis showed that connecting conceptual and world knowledge to different textual parts to derive meaning was declared to be the most used metacognitive strategy whilst brainstorming and reflecting on the grammatical and syntactical structures were attributed less relevance.

It is important to underline that the answers to Questionnaire 1 could be biased by subjects' guessing and those to Questionnaire 2 by the desire to hide their true attitude to the academic context and the EFL course.

Questionnaire 2 revealed the subjects' positive attitude towards what they learn in the context-reduced environment of the faculty of economics and toward their possibility of expanding existing knowledge in Italian. Moreover, an overall positive attitude towards English was reflected by the subjects' wish to increase the number of hours of the English course and the

access to foreign exchange programmes. By contrast, dissatisfaction emerged from the content of the English curriculum which was considered inadequate to meet the needs of the working world. This underscored the apparent instrumental value of English for the subjects.

The two interviewees emphasised the subjects' reluctance to interact in class and thus develop an active method of reasoning which would help to expand their conceptual knowledge. These interviews add only limited weight to my analysis but do offer insights which could be followed up in further research.

The significance and relevance of these findings will be discussed in the next chapter.

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CHAPTER 6

DATA INTERPRETATION

6.1 Introduction

The key findings in Ch.5, highlighted by those of the pilot study, showed that the subjects' reading performance and proficiency scores decreased when they read the Advanced Level Italian economics textbook excerpt (B). The findings showed also that the scores decreased markedly when the subjects read the English version (C) of (B).

Moreover the findings of the main study pointed to a similar pattern of the subjects' responses across all four texts - D, E, F, G – thus indicating a difficulty in building cohesion, deriving main ideas and inferring meaning in the texts.

These findings are consistent with those of Palincsar and Brown (1984) and Oakhill, Cain and Bryant (2003) on poor school level comprehenders – individuals without particular intelligence deficiencies but with difficulties in understanding the meaning of a text. Yet they can be extended to university subjects with similar difficulties in integrating information to derive the overall gist, or the main theme of a passage.

Furthermore, two types of score variances emerged from the mean score and breakdown analyses, both in the pilot study and in the main study:

- an intra-genre variance, i.e., a variance within the textbook genre itself (between the reading performance and proficiency of economics textbook excerpts in different levels of Italian, and between Italian and English) and within the news genre (between the two text types in English);
- an inter-genre variance, i.e., a variance between the textbook genre and the news article genre.

All the results were supported by data captured from answers to Questionnaire 1, which indicated that the subjects:

- (i) used generic cognitive and meta-cognitive reading strategies in Italian and in English;

- (ii) activated their conceptual knowledge prevalently at a generic level in Italian;
- (iii) linked their conceptual and world knowledge to different textual parts of texts, for the purpose of deriving meaning in English.

Moreover, the responses to Questionnaire 2 showed an overall positive attitude by the subjects towards English. But dissatisfaction was displayed with the EFL curriculum, which failed, in their opinion, to meet their English-specific needs for the working world (§Appendix I). All these findings are summarised in Table 6.1 below:

Table 6.1 Key Findings Ch.5

Pilot Study Findings <ul style="list-style-type: none"> Text B reading comprehension scores indicated: a decrease in reading performance in advanced level Italian. Text C (English version of B) reading comprehension scores indicated: a marked decrease in reading proficiency in advanced level English 		
Pilot Study & Main Study Findings <ul style="list-style-type: none"> Intra-genre variance in reading performance & proficiency. Inter-genre variance in reading proficiency. 		
Main Study Findings Response pattern across Texts D, E, F, G indicated: <ul style="list-style-type: none"> a decrease in intra-genre reading performance; an accentuated decrease in intra-genre and inter-genre reading proficiency; the difficulty building cohesion and deriving, construing meaning. 	Questionnaire 1 Findings <ul style="list-style-type: none"> Generic cognitive & meta-cognitive reading strategies used in Italian & English. Generic conceptual knowledge activated in Italian. Conceptual & world knowledge linked to different textual parts to derive meaning in English. 	Questionnaire 2 Findings <ul style="list-style-type: none"> A positive attitude towards English. Dissatisfaction towards the English curriculum in the UNIFI Faculty of Economics.

I will interpret the significance of these data by discussing why and how they assist us in answering the research questions relating to the features of bidirectional Italian-EFL transfer between economics and business texts at an intra-genre and inter-genre level.

6.2 Research Question 1

Is there a transfer between the subjects' domain-specific conceptual knowledge of the content of Italian texts and their comprehension of translation equivalent or similar concepts in English texts?

The qualitative and measured findings, which emerged from the pilot study and the main study, show that **transfer did take place between the subjects' domain-specific conceptual knowledge in reading Italian textbook excerpts and their comprehension of translation equivalent or similar concepts in English.**

The finding confirms evidence collected from previous studies (Williams and Capizzi Snipper 1990; Toukomaa & Skutnabb-Kangas 1977; Cummins 1979) all of which claim that transfer of knowledge occurs if there is a high correlation between the subjects' primary language (Italian, in this case) literacy level and their proficiency in a FL (English). Following Cummins (ibid.), the basis for a possible attainment of EFL proficiency is the level of attainment in the L1, because learning is linked to the learner's mental functions which derive from completed developmental cycles (§Ch. 2). Other experimental studies (Roebuck 2000, Centeno-Cortés and Jiménez-Jiménez 2004; Frawley 1997) argue that intermediate level subjects rely heavily on their L1 to bring into focus those features that are seen as relevant to solve a particular problem in the FL, according to a specific activity.

My data, on the one hand, point toward confirmation that an underlying cognitive and academic competence in understanding and using economics and business concepts across languages aids a successful transfer of literacy-related skills from L1 to EFL. On the other hand, they highlight that **a limited or good domain-specific conceptual knowledge in L1 (Italian), at tertiary level, differentially affects subjects' comprehension of translation equivalent domain-specific conceptual knowledge in advanced level EFL.**

My assertion in Ch.4 is given evidence by the data that the **different levels of reading ability in Italian L1 readers of economics texts in Italian correlate, at least in part (i.e. conceptual transfer is but one factor), with different degrees of bidirectional Italian↔English transfer of conceptual knowledge, when reading texts of the same genre in EFL (§Ch.5: B4Q2; C6Q2).**

This differentiation between the reading levels in L1 and EFL is also matched by the standard deviation, that is the measure of variation between the subjects' reading performance and proficiency levels (§Ch.5:5.2;5.3). The variation in reading proficiency increased for the English version (Std. dev=0.35) compared with the Italian version of the same test (Std. dev=0,00). The low score in EFL is, however, to be linked to other variables I will discuss later.

Furthermore, the data in Ch.4 gives evidence that **transfer is not an automatic process**, even if Italian and English are cognates. A high score in reading in Italian as L1 does not necessarily correspond to a similar one when reading in English, but rather indicates that **readability of economics texts in L1 correlates partially with different degrees of bidirectional Italian↔English transfer of conceptual knowledge**.

This means that although the subjects might have possessed a grounded domain-specific conceptual knowledge in their L1, they were nevertheless incapable of generalising their propositional levels and using the concepts learnt in L1 in novel domains – in this case whilst reading in EFL.

This finding signals that the subjects had not been sufficiently involved in any intellectual challenge within academic literacy practices (Lea and Street 1998; Street 2003), or in any pursuit of new ideas in a wider integration of related ideas and different aspects of the same problem (Ausubel 1969; Christie 1989) in EFL. Without having learnt how specific concepts are organised into a hierarchical system of interrelationships – in L1, in this specific case – it is difficult to see how the subjects could transfer them to English, and vice versa, without reconceptualising their concepts, firstly, in their L1 and then in EFL by writing.

Writing represents a unique mode of learning. Writing is originating and creating a unique verbal construct that is graphically recorded. Reading, by contrast, is creating or re-creating but not originating a verbal construct that is graphically recorded, as Emig (1977:123) argues. Writing therefore requires the establishment of systematic connections and relationships amongst the diverse domain-specific concepts learnt, a slow connective process leading to learning. This slow pace encourages the shuttling among past, present and future to make meaning through analysis and synthesis: analysis, the breaking of entities into their constituent parts and synthesis, combining or fusing these into new arrangements or amalgams (ibid.:127).

The subjects' difficulties to reconceptualise their domain-specific concepts recall the claims made by both my interviewees (§Ch.5) in UNIFI Faculty of Economics:

[...] only 20% of the students possess a tertiary reading ability level, which allows them to understand abstract economic concepts and successfully attend my course in Political Economics (Prof. M. Bellandi – Interview1).

[...] only 20% of the students have a tertiary reading ability level, whilst the rest have difficulties understanding the concepts discussed in my Mathematics course (Dr. D. Colucci – Interview 2).

In other words, the majority of the subjects could only trigger what Perkins and Salomon (1988) define as a *low-road transfer*, an unconscious process activated when a present situation is perceived as similar to a previous situation in which learning occurred. The subjects, therefore, did not know how to use their domain-specific conceptual knowledge flexibly in a context understood in terms of very different implications, that is, in novel situations, as Biggs (1996) and Street (2003) maintain. If they had been encouraged to do so, they would have been able to strengthen and broaden their knowledge.

Consequently, only a minority – 20% of those attending mandatory first year courses at UNIFI Faculty of Economics (§Interviews 1 and 2. Ch.5) – learnt economics concepts in L1 through what Perkins and Salomon (1988) term *high-road transfer*. That is, a conscious process that can occur by applying concepts through action, speech and thinking to two situations which lack obvious similarities. Thus, only few subjects were able, as Wells (2002) claims, to employ their personal resources in other situations such as understanding similar concepts in EFL and in texts of different genres through high-road transfer.

Moreover, given my personal EFL teaching experience in this context, I see the subjects' inability to apply their conceptual knowledge to different domains or to reframe (Lakoff 2005) in L1 and in EFL as closely related to:

- (i) their strategies in learning in L1;
- (ii) the method/s of teaching the economics concepts in L1;
- (iii) how they transfer their L1 domain-specific conceptual knowledge to English during their EFL courses.

Specifically, the subjects showed their reluctance to interact in class during the EFL courses in UNIFI Faculty of Economics, thus rendering required reasoning, speculating and deriving meaning in English a major effort and a difficult target to achieve. This aversion to abstract reasoning and acquiring knowledge is also underlined by the two interviewees below:

The majority,[...] is characterised by a pragmatic view of business issues, most students being Business students, with an aversion toward abstract reasoning and knowledge on which the course is based. [...] the students resist strongly to being involved into discussions and having to reason autonomously (Prof. M. Bellandi – Interview1. Ch.5).

[...] the students are unwilling to build on concepts and achieve a formal structured method of reasoning. Besides, they try to reject any form of interaction in class (Dr. D. Colucci – Interview 2. Ch.5).

The motivation behind the subjects' resistance to interaction in EFL might have been multifactorial. It might have derived, in part, from their educational background based on transmission-delivered courses, in their L1, in which knowledge was seen as de-contextualised, as something to receive accurately and store (Biggs 1996) and teaching considered as a matter of transmitting this knowledge. This objectivist tradition presumably generated a lack of confidence in the subjects' discursive activity, or their reluctance to expose themselves as weak subjects in L1 and EFL classes.

Such an educational methodology, Vygotsky (1962) argues, precludes the development of higher cognitive functions that go far beyond the confines of a particular subject. Learning occurs through dialogue which is initially *intermental*, meaning it takes place between lecturer and students, between students, or even between text and reader. Learning, though, occurs also when the learner makes sense of what is said or written through internal or *intramental* dialogue (Vygotsky 1978.).

As a result, learning is interactive in that learners must interact with sources of ideas/knowledge in social settings. They must take an active part in reconstructing ideas/knowledge within their own minds. In other words, whilst the subjects read and construe and/or derive meaning from texts of different genres (textbook genre and news genre) and different text types, they draw on earlier and different discursive structures, on already established meanings in L1, and between L1 and EFL which they transform into a personal reinterpretation of the texts. This

interdependence between the subjects, the L1 and EFL texts includes also the writers of the texts and *intertextuality* - elements and discourses of other individual texts that are appropriate to the new texts and arise out of a specific social occasion (Kress 1989; Fairclough 1995).

A lack of interaction, instead, does significant harm in academic practices, because it denies the primary function of language in constructing meaning (Christie 1989: 166; Street 2003). As I already discussed (Ch.5), domain-specific knowledge is characterised by meta-knowledge, that is, higher level knowledge construed and refined to achieve both optimal explanatory and predictive power and the ability to transcend existing conceptions (Reif and Larkin 1991).

The context-reduced discourse in the Faculty of Economics requires that commonsense knowledge be abandoned in favour of long formal methods designed to implement long inference chains with great precision. Formal methods, involving rule-based reasoning, are not naturally congenial to humans; they consequently require specialised training and ability to interpret abstract symbols in any concrete instance (§Ch.5). By putting things into words, a conscious awareness can be developed through the use of language which propels thinking towards conceptual understanding. Language and interaction, thus, hold a primary role in context-reduced language proficiency (§Ch.3). The low scores attained on the Advanced Italian economics textbook excerpt (B) and its English version, excerpt (C), confirm this assumption.

The low scores in reading performance and proficiency as measured herein indicate that:

- (i) The subjects, at tertiary level, had not sufficiently developed wide domain-specific conceptual knowledge networks in Italian L1, which would have allowed them to move away from their immediate conceptual system towards wider parameters of context.
- (ii) The subjects' conceptual knowledge had not been integrated into dialogic interaction nor into any task as, for instance, writing for an academic or professional purpose. In both L1 and EFL, they did not develop cognitive flexibility or 'appropriateness'; that is, a judgement that employs one's tacit knowledge regards how language is used appropriately, entailing competence, logical reasoning or abstractness. The lack of dialogic interaction led instead to constraints on the subjects' assimilation of domain-specific concepts.

- (iii) The lack of dialogic interaction and tasks also altered the subjects' cognitive activities, the way they approached reading for specific purposes in L1 and, consequently, the way they derived meaning whilst reading in EFL.

In addition, the methods of learning and teaching, described above, are in contrast to Vygotsky (ibid.) and Lantolf (2000), who point out that learning depends on the purpose or motivation for learning, since, as learners, what we select to focus on in our learning, and how we go about that, depends on the social and/or academic-instrumental purposes of the activity.

My findings, thus, underscore that the subjects' **transfer between domain-specific conceptual knowledge in Italian texts and their comprehension of translation equivalent or similar concepts in English texts is a complex process**. In it, the cognitive and linguistic components are influenced not only by the subjects' cognitive skills, but also by individual variables, such as their motivation, attitude, learning strategies, personality, previous knowledge, universal capabilities and their total environment. All these factors, however, are significant in terms of what I have defined as contextual syncretism (§Ch.4).

Within the framework of **Contextual Syncretism**, EFL language proficiency, of which conceptual transfer is an essential element, should be viewed as a dynamic, complex, interacting network that is inseparable from context (§Ch.2). All these variables, and many more, do not operate autonomously or in decontextualised ways, but do so as an organic functional system. Contextual syncretism can therefore be seen as a skilful balancing of several variables operating synchronically, interactively and synergistically at a cognitive level as well as a contextual level.

More specifically, transfer between domain-specific conceptual knowledge in Italian texts and their comprehension of translation equivalent or similar concepts in English texts is strictly connected to the context-reduced environment in which it takes place, as it undergoes a context↔individual bidirectional influence through pedagogy, learning strategies and innumerable personal variables of the learners.

I consequently consider context as simultaneously productive and produced by individual, collective and institutional activity. An example of the latter are the constraints imposed on, or the resources provided to, the EFL course by the UNIFI Faculty of Economics. Hence, this mutual influence of interrelated factors requires a more comprehensive interpretation of reading comprehension in the UNIFI context.

Although research on text factors, reader variables and L2 reading comprehension abounds in the literature, the overall picture of the patterns of interaction among the major variables is far from clear, as Oh (2001) argues. Many studies have focussed separately on the linguistic and cognitive components, reader variables, reading strategies, content schemata, recall, motivation and interest (Keshavarz and Atai 2007, Brantmeier 2006, Oh 2001, Kang 1992, Carrell 1987, Steffensen and Joag-Dev 1984, Johnson 1982, Anderson 1979). By contrast, my attempt is to provide a more comprehensive view of the interaction among conceptual knowledge, cognitive and meta-cognitive reading strategies and attitude in genre-based EFL reading for academic and professional purposes on the part of Italian economics undergraduates.

Since my samples and findings are limited in size I can therefore only speculate that some of the possible causes of the subjects' reading comprehension performance drop in Italian L1 at UNIFI are as follows :

- (i) poor educational standards attained by the end of secondary schools;
- (ii) rote learning at tertiary level (§Ch.5);
- (iii) lack of interaction and of writing preventing the application, use and development of domain-specific-conceptual knowledge already possessed (§Ch.5);
- (iv) misuse of cognitive and meta-cognitive reading strategies (§Questionnaire 1);
- (v) low interest in the EFL curriculum (§Questionnaire 2).

The data analysed in this case study, moreover, have the purpose of achieving an understanding of the particular case in its complex reality (§Ch.4), and due to its small size, I will not provide generalisations. I will rather describe the case investigated in a way that captures its unique features. These therefore remain to be tested more extensively in future research, before generalizations can be made.

All the above variables play a significant role in the reading comprehension process to the point that a variation in any of the components impacts significantly on the subjects' reading performance in L1 and proficiency in EFL. It also confirms my assertion that bidirectional Italian↔English domain-specific conceptual transfer is not an automatic process, even though Italian and English are cognatedly related languages.

Transfer is a process depending on the common way in which experience is construed and on the variation from one language to another in describing the reality in which we are embedded (Halliday and Martin 1993). Therefore, **when transfer does not take place**, on the one hand, **it is mainly due to the subjects' partial incapability of establishing relationships between the concepts learnt in their L1 and being able to abstract them at a high level**. Being able to do so would imply shifting to a higher level of specificity (Cummins 1981).

On the other hand, transfer depends on the subjects' capacity to implement the concepts learnt in L1 in new domains, for instance in reading EFL texts, the comprehension of which is also affected by the linguistic components characterising them.

This leads me to focus on derivation of meaning, as addressed in RQ2:

6.3 Research Question 2

Is there a relation between the capacity of the Italian L1 subjects to use the inherent structural components when reading and comprehending an Italian text and when reading and deriving meaning in an equivalent English as FL text?

As mentioned, transfer, among other variables, interrelates with linguistic components. I assumed, therefore, that different levels of reading proficiency of economics texts in Italian would correlate with different degrees of bidirectional Italian/English conceptual knowledge transfer whilst reading texts of the same genre in English (§Ch.3 and 4). I also view the process as strictly linked to the subjects' capacity to use structural components of texts whilst reading in L1 as well as in English.

The data analysis in Ch.5 revealed, firstly, in the pilot study, that the reading performance mean scores for the economics textbook excerpts in different levels of Italian – A (Basic Level) and B (Advanced Level) – decreased when the subjects read B. The Basic Level excerpt A required the subjects to construe meaning by elaborating text-based representations linked to the textual structures, whereas the Advanced Level excerpt B, with its more complex discourse structure, required a mental model representation that involved active constructive processing, elaboration and/or efforts to understand (Meneghetti et al. 2006).

Such a finding was to a degree predictable, as also underlined by Interviewees 1 and 2 (§Ch.5) and RQ1. This indicated that a number of subjects were below tertiary level complex discourse processing expectations, i.e., CALP levels (§Ch.3), although they were reading in their L1 at a level which might be expected to characterise university economics textbooks. In other words, the subjects should have been able to abstract the deep principles involved in the knowledge they were learning and reflect upon features in the texts by relying on linguistic cues characterising technical and specialist discourse.

Furthermore, the findings showed that the minority of subjects who attained high scores were the only ones able to use their domain-specific conceptual knowledge to make sense of new information through a personal reconstruction, thus reaching a higher level of abstraction. They were aware and able to monitor and adopt appropriate cognitive and meta-cognitive comprehension strategies for the domain-specific text. These data, on the one hand, confirm Best et alia's (2005) and Murphy and Alexander's (2002) showing that subjects with higher prior domain knowledge are better equipped to generate inferences in order to generate text-level representations. On the other hand, my data refer to non-native EFL tertiary subjects, unlike the previous studies on subjects with English as an L1.

The majority of the subjects in my case study were, by contrast, unable to do so, thus confirming that **most subjects lacked, in terms of their scholastic grounding, the academic competence to cope with economics conceptual structures.** My data further underline the implications related to scarce participation and reflection which restrict opportunities to construct psychological tools through which individuals become increasingly able to participate in discussion, internalise actions, and advance their cognitive functioning to more complex and abstract levels (Lantolf 2006; Swain 2000; Leont'ev 1999).

As a consequence of the teaching and learning methods I discussed in RQ1, **the subjects' limited domain-specific conceptual knowledge in L1 (Italian), also due to a lack of writing in the EFL curriculum, constrained their comprehension of corresponding domain-specific conceptual knowledge in advanced level EFL** (§Table 5.14 Ch.5; Text B: B3Q9; Text C: C5Q8). This finding is akin to those of Carrell (1987), Johnson (1982), Kang (1992), Oh (2001), even if these studies used different kinds of texts.

The finding is also relevant as the domain-specific concepts, expressed through lexical items acting as points of origin of interdependent networks that constitute texts as semantic units, were not recognised by the subjects as such; nor did they recognise that one stratum related to another, downwards and upwards, i.e., the grammar, discourse and social context, operating at different levels of abstraction (Martin and Rose 2005).

My findings, therefore, indicate that the subjects were unaware of the cohesiveness of a lexical item related to other items, nor of the non-existence of any dividing lines across the text, nor between meaning and form. The subjects were unaware that discourse nestles within social activity, and grammar nestles within discourse (ibid.), and that these are intertwined in social context (Hasan and Martin 1989). As a consequence, the subjects were only partially capable of connecting the semantic units across the texts to construe and derive meaning.

I consider this to be associated not only to an unawareness of lexical items being related to concepts developed in interdependent networks across texts, but also to an incapability of recalling adequately concepts learnt in L1 and to transfer them back and forth into EFL.

Moreover, the mean score analysis for the economics textbook excerpt (E) in English and the corresponding excerpt in Italian, (F), in the main study, underscored and confirmed the difficulty encountered by the subjects, in connecting the grammatical and structural components to derive meaning from the text in English, in the pilot study. However, unlike the pilot study, the scores on the informational tests were equally low for the English and the Italian textbook excerpt, thus suggesting, once again, that the subjects did not perform a successful bidirectional Italian↔English conceptual transfer whilst reading a domain-specific text in English or in Italian.

Flowing from this, **my findings do not fully confirm Cummins's claim** that although L1 and L2 differ in surface features of phonology, syntax and lexicon, a common underlying proficiency determines an individual's performance on cognitively-shaped academic tasks (e.g. reading) in both L1 and L2 (Cummins 1980: 118). Nor do my findings confirm Chomsky's argument that any two languages in contact operate through the same central processing system.

My findings indicate that, in a context-reduced environment, even if the subjects scored high on MCQs of surface grammatical and structural parts of the economics textbook

excerpts in L1, they were nonetheless apparently incapable of using this knowledge to attain a higher level of abstraction in answering equivalent MCQs in English.

My data dispute Clapham's 1996 work on the effect of subject matter knowledge and the relationship between the language ability of students taking the IELTS test of reading for academic purposes and their ability to understand text in and out of their subject discipline. Clapham found that a score of roughly 60% on her grammar test represented a level of linguistic knowledge below which students were unable to understand texts even in their own subject disciplines. Keshavarz and Atai (2007) claim that if the content is unfamiliar, readers cannot guess the meanings of new words, and new lexical items will only add to the readers' problems.

By contrast, the subjects in my study scored about 75% on their (B3 economics textbook excerpt) grammar and structural test in L1 (§Ch.5 - Figure 5.3), hence were familiar with the domain yet, because their domain-specific conceptual knowledge in L1 was not sufficiently grounded, it did not aid them in guessing the meanings of the words in EFL. Thus, **a high competence in domain-specific conceptual knowledge is a crucial variable. Inadequate domain-specific conceptual knowledge in L1 can have variable effects on meaning derivation, when reading and comprehending an Italian text as well as when reading and deriving meaning in an equivalent text in English** (§Text B - B3Q5; Text C – C5Q4).

Moreover, since the text (B) was in Italian, I had assumed it would have been easier for the Italian subjects to construe meaning. But my prediction was only partially correct. Nevertheless, my findings are consistent with recent views (De Beni and Palladino 2000; Chiappe, Hashe and Siegel 2000; Palladino, Cornoldi and De Beni 2000; Gernsbacher 1997) which attribute error intrusion, in working memory tasks for poor reading comprehension ability, to inefficient suppression mechanisms causing an overload and high interference in working memory.

Although my findings are in line with these studies, it seems that evidence previously collected is only at school level or among old age readers. My results can therefore hold important implications for future research design, as they are motivated by the dearth of investigations into direct comparison of L1 versus those in EFL at undergraduate level (§Text C – C5Q4 as a sample of this contrastive analysis).

Thus, the answer to my RQ2 answer is that **there is very little relation between the capacity of Italian L1 speakers to use the structural components when reading and comprehending an Italian text and when reading and deriving meaning in an equivalent English text.** This issue is connected to domain-specific conceptual knowledge. If this is insufficiently grounded in L1 it will not aid the building of meaning in L1 nor in EFL.

The above issue leads me to consider its impact on reading proficiency across genres, as in RQ3:

6.4 Research Question 3

Is there a monotonic relation between these subjects' reading proficiency across different genres in English?

The quantitative results which emerged, from the main study, show **there is a minimal monotonic relation between** the subjects' reading proficiency across **the two different genres in English: the news genre and the textbook genre.** However, the pattern that emerged from the breakdown analysis showed there were similarities between the news genre texts and the textbook genre texts.

More precisely, **in the news genre** text types – D and G - the breakdown analysis highlighted the same pattern which characterised the textbook genre excerpts A, B, C, E, F:

- (i) the easiest items were found to be the lexical items cognatedly related to Italian and the finite verb tenses;
- (ii) the medium difficulty items were among function words;
- (iii) the most difficult were lexical items and modal verbs, requiring reference to world knowledge and linkage of semantic units to derive meaning in the text;
- (iv) the highest scores, among the informational MCQs, were attained on questions requiring the provision of specific information;
- (v) the lowest scores were attained on questions related to inferring information.

The subjects scored highest on D (generic English news article), as expected, since they had to refer to their generic world knowledge which, in terms of BICS (§Ch.3), refers to cognitively undemanding manifestations of language proficiency supported by anticipation related to guessing and simple commonsense.

Being in generic English, the article was narrated in a less formal and less complex language than the economics textbook excerpts, although it followed the typical inverted pyramidal structure (§Ch.5: Main Study). However, the most difficult item (§ Ch.5 Text D - D1Q14) in the text was a cognate term which suggested its interference with the subjects' economics and business domain-specific knowledge in reading a generic English text.

The finding is in line with recent research on error intrusion in working memory tasks, as a consequence of inefficient suppression mechanisms causing an overload and high interference in working memory (De Beni and Palladino 2000). These studies, however, mostly investigate generic texts in English or Italian as an L1 (e.g. Ammon 1987; Langer, Bartolome, Vasquez and Lucas 1990), not domain-specific texts at tertiary level.

By contrast, **my data extend evidence in EFL and suggest that prior generic knowledge plays a supportive role in comprehending a written text but only to a limited extent.** Moreover, the inappropriateness of the items chosen as correct answers might be seen as closely linked to the various teaching and learning methods in the language curriculum of the EFL course in Economics I have already flagged.

The data also point out that the subjects attained relatively high mean scores (§Ch.5. items ≥ 0.85 were considered easy) on all four informational MCQs. This indicated that the subjects might have derived informational meaning by connecting the various segmental parts of the text, the logical semantic components (Halliday 1978) repeated in it, and the lexical recursion which creates density which is however inferior to that in economics texts. These features might have offered the subjects an additional clue to the correct answers.

The descriptive statistical analysis and the relative nonparametric tests indicated that the twenty grammatical and structural MCQs and the four informational MCQs in D presented a significantly easier test of achievement performance than those in text G (business news article in English). This decrease, compared to that in D, might be related to the change in the systematically-organised sets of statements which, in G, give expression to the meanings and values of business news (Kress 1990). The lexical density of G, due to its purpose of business communication, appeared to impact negatively on the derivation of meaning from the text, even if it was downloaded from an online business journal and did not address a highly specialised readership.

In G, as well as in D and in all the economics textbook excerpts A, B, C, E, F, the lexical items or content words are related to a specific domain that typify a genre (Gee 2001:100). Gee defines content words as informationally salient because without knowing their precise meaning it is difficult to understand the meaning of a sentence (§ Text G - G7Q2).

Moreover, **my findings point out that decoding the structural part of a text alone is an inadequate way of deriving its general meaning.** As Gee (ibid.) argues, the language used in a text has to have a sense which derives, on the one hand, from all the micro text parts, on the other hand, from the socio-cultural-academic knowledge model each subject brings to the text, according to a reflexivity process, as discussed in RQ2.

Deriving meaning from a text is not simply attained by decoding its grammar. It requires the subjects' capability of inferring the essential clues from the text, re-elaborating and reconstructing them at a higher level. This is done according to one's conceptual socio-cultural-academic knowledge perspective (§Ch.4) and embeddedness in the context-reduced environment of the Faculty of Economics.

I, therefore, assert again that **the subjects' incapability to connect lexical items across a text and to realise that lexical items vary in their meaning according to the communicative purposes of the text presumably results from deficiencies in the EFL teaching and learning methods.**

Indeed, the various steps through which the text unfolds are related to one another to form a continuity which is fundamental for interpreting the text. Linking of the semantic resources is achieved through relations in meaning and they are drawn on for the purpose of creating text. So, it is not the presence of a particular class of item that is cohesive, but the relation between one item and another that is crucial (Halliday and Hasan 1976)

However, the subjects did not repeatedly grasp cohesion in the news genre texts in EFL. This caused them increasing difficulty also in the textbook genre, as my data repeatedly showed.

In the textbook genre, the subjects chose the highest number of wrong answers (§Ch.5), presumably because of misunderstanding the meaning of lexical items, lexical density and syntactical complexity (§Ch.5. Text E - E3Q9). Similarly to the answers in the news genre texts,

in Text E (§Ch.5. E4Q2) the subjects did not consider the logical function of language, how the writer sees the logical anaphoric and cataphoric connections between different pieces of information. Moreover, the subjects' wrong choices signalled that they lacked a grounded economics conceptual knowledge in Italian to refer to.

If we consider these findings with those from the economics textbook excerpts discussed in the previous two RQs, unlike Floyd's and Carrell's (1987), my results and their meaning suggest that the answer to RQ3 is that **the increasing syntactic complexity of the text has a significant negative effect on its comprehension as much as the domain-specific conceptual knowledge language it encodes. These components impact negatively to varying degrees at the intra-genre level as well as at the inter-genre level, thus preventing a monotonic relation between the subjects' reading proficiency across the news and textbook genre.**

This finding further reinforces my initial assertion that transfer is not an automatic process, even at the intra-genre level, although it has a crucial role in EFL reading, as Upton and Thompson (2001) claim. On the contrary, transfer is a multi-factorial process affected by cognitive and meta-cognitive reading strategies amongst innumerable others. It is on these factors I will focus on in my next RQ:

6.5 Research Question 4

Are cognitive and meta-cognitive reading strategies used by the subjects whilst reading in their Italian L1 applied to reading similar texts in English as a FL?

Secondary Research Questions:

- (i) What is the nature of the reading strategies applied?
- (ii) How frequently are these strategies applied?
- (iii) If they are not applied, what might be the reason?

The breakdown analysis of the results of Questionnaire 1 - sections A and C - highlighted the nature and frequency of the subjects' use of cognitive strategies while reading in Italian and English. They indicated, although the responses cannot be considered 100% reliable, that the subjects **used cognitive reading strategies generically in both languages.**

In particular, the most frequent strategies the subjects indicated to use were:

- (i) re-reading what they had not understood in a text;
- (ii) reading slower when a text was difficult;
- (iii) deriving domain-specific knowledge from general knowledge;
- (iv) using conceptual, world, lexical and grammatical knowledge together to construe and/or derive meaning.

The scores attained on the informational tests B4 (§Ch.5 Text B) - Advanced level Italian economics textbook excerpt in the pilot study - and F6 (§Ch.5 Text F) – Advanced level Italian economics textbook excerpt in the main study – confirmed the subjects misused their cognitive skills. Similarly, the low scores on using grammatical and lexical knowledge to construe meaning are in line with the low scores attained on the grammatical and structural part of the Italian tests B and F deriving from choosing verb tenses, modal verbs and lexical items.

The lower readability level attained on the two Italian syntactically more complex texts (B and F) suggests the subjects used their cognitive strategies limitedly. This might have derived from transmission teaching which encourages rote learning and not the cognitive, analytical skills and strategies necessary to plan, control and evaluate one's understanding.

Furthermore, in Questionnaire 1 all the choices of section A were consistent with those of section C. These showed that the subjects used cognitive strategies while reading in Italian and English, even though the responses indicated **the subjects felt the need for stronger cognitive support to decode texts in English**. This is shown by a high number of subjects declaring they used their grammatical and lexical knowledge (Q31 $m=4.19$) and devoted attention to specialised lexis whilst reading an economics text in English (Q25 $m=3.88$) to derive meaning.

In consequence, a consistent pattern emerges from the first four most frequent cognitive strategies chosen in both sections A and B (§Ch.5); that is, **the subjects have a unitary view of reading**. In other words, **they recognized the many similarities between reading in Italian L1 and EFL, although their reading proficiency in EFL was lower than in L1**.

This is in contrast with Garcia et al. (1998) and Mokhtari and Reichard (2004), who argue that only successful bilingual readers demonstrate awareness of several strategies, with some limited actual use of certain strategies and that the successful bilingual readers are aware of the transference of knowledge across languages. In other words, bilingual readers know that

information and strategies learned or acquired in one language can be used to comprehend text written in another language. Conversely, the less successful bilingual readers do not have a unitary view of reading and consider the two languages unconnected.

My data, instead, show that although the subjects did not attain high reading proficiency scores, they transferred, even if partially, their conceptual knowledge from their L1 to EFL. They also showed an awareness of reading strategies but were limited to the most generic ones.

This suggests that the subjects, although not expert FL readers, perceived the information and the strategies learned or acquired in one language – L1 - as usable to comprehend a text written in another language. However, they did not seem to realise it was worthwhile to invoke more specific strategies which could further support their comprehension.

The higher frequency of cognitive strategies being used whilst reading in English than in Italian signals the subjects' need for conscious processing of the text. This is, however, contradicted by low reference to grammatical and lexical knowledge in English and might be the cause of the low scores on the grammatical and structural tests (C, D, E, G) in English, in the pilot and main studies.

An important note is provided by the *nearly always* scale being chosen most in section C (§Tables 5.19, 5.20 and 5.21, Ch.5). This suggests a degree of uncertainty on the part of the subjects in applying the necessary cognitive reading strategies to enable them to comprehend the text.

The pattern followed in using cognitive strategies whilst reading in Italian and English was followed also in section B, which indicated rather generic meta-cognitive reading strategies were used while reading in Italian.

Regarding the activation of conceptual knowledge, this was mostly done at a generic level, as sections A and C indicated. Indeed, the majority of subjects responded they nearly always:

- (i) activated their conceptual knowledge after reading the title and first line of a text”
Q13 (m= 4.09);

- (ii) integrated visual representations in their reading Q18 (**m=4.09**);
- (iii) found the main points of a text Q16 (**m=4.06**);
- (iv) continued reading for the gist of a text Q20 (**m=3.97**);
- (v) read the title and first lines of a text to anticipate its content Q12 (**m=3.63**);
- (vi) recognised textual features to classify a text as belonging to a genre Q15 (**m=3.63**).

Interestingly only 31% nearly always referred to the syntactical construction of a text to construe meaning Q17 (**m=2.94**). This particular response is in line with the findings discussed in RQs 1, 2, and 3. It also points out that the difficulty of construing meaning in L1 might be linked not only to the conceptual factor and the language factor, but also to their inability to use extensively specific meta-cognitive strategies.

In section D of Questionnaire 1 – meta-cognitive strategies used whilst reading in English – the descriptive statistics and breakdown analysis showed that connecting conceptual and world knowledge to different textual parts to derive meaning were declared to be the most used meta-cognitive strategies. Brainstorming and reflecting on the grammatical and syntactical structures were attributed less relevance. However, none of the subjects chose “Always” as an answer rank, thus suggesting that they were not too sure which meta-cognitive strategies to use.

The data in sections B and D indicate that the subjects did use meta-cognitive reading strategies whilst reading in their L1, and applied them to reading similar texts in English as a FL. This is in line with the responses of the two previous sections A and C that showed that the same subjects followed the same pattern in using cognitive strategies whilst reading in their L1 and similar texts in EFL.

In addition, the responses indicated that the subjects used cognitive and meta-cognitive strategies but to a limited extent in both languages, suggesting that they lacked reading strategy awareness and use of the strategies.

However, the findings also underlined a difference between the frequency of reading strategies used when reading in L1 and in EFL. Therefore, **the answer to RQ4 is that the subjects used reading strategies more whilst reading in English than in Italian L1. This suggests the lower the reading ability level in a language, the stronger the need for support.**

However, prior research (Wagner 1993) has established a link between the development of meta-cognitive beliefs about reading and reading strategies, (e.g. acquiring concepts about structural features of text, meta-cognitive aspects of text-processing strategies), and reading development. But it is unclear whether differences in meta-cognitive awareness and strategy use vary as a function of reading ability levels.

Nevertheless, **my data indicate a direct relation between the limited use of reading strategies and the poor performance and proficiency reading scores of the subjects of linguistically more complex texts.** These are connected, among many other factors, to partial domain-specific conceptual knowledge transfer and the incapability of deriving meaning from lexically dense texts.

Flowing from this, **the results of Questionnaire 1 point out that meta-cognitive awareness, as applied to reading, is not an automatic outcome of subjects' learning and reading EFL.** It rather entails being instructed on one's cognitive processes and learning which appropriate reading strategies to apply.

My data document the types of meta-cognitive reading strategies the Italian subjects use whilst reading in English, since virtually no research currently exists which investigates the cognitive and meta-cognitive awareness and use of reading strategies by university subjects studying in an Italian context-reduced environment in which English is a FL.

As Mokhatari and Reichard (2004) claim, most available research tends to focus on monolingual and bilingual children with similar backgrounds, on specific meta-cognitive knowledge, meta-linguistic skills and reading performance. Limited research is devoted to the reading strategies of first and second language students at lower levels of proficiency, to those studying in secondary school, or in pre-university programmes. Thus, **my findings extend research on reading comprehension in EFL, not ESL, and to the use of cognitive and meta-cognitive strategies in the complex process of reading in Italian L1 and in EFL by Italian readers,** in the pilot study as well as in the main study.

Most studies tend to analyse groups of readers belonging to primary languages other than Italian in almost exclusively English-language based realities (Bernhardt 2003). My case study, as discussed, considers also the attitudinal and motivational components the Italian subjects bring to

the reading process as well as the context-reduced nature of the academic texts used in the faculty of economics at UNIFI. I focus on this interrelation in the following RQ.

6.6 Research Question 5

Are there linkages between attitudinal and contextual factors, in the subjects, and the development of their EFL reading proficiency?

The data generated by Questionnaire 2 provided an aggregate picture of the subjects, although, as for Questionnaire 1, their responses cannot be considered fully reliable. Overall, they revealed a positive orientation towards learning English, in the academic environment of the UNIFI Faculty of Economics, just as they were keen to expand their domain-specific knowledge of economics in Italian L1. I therefore considered this an indicator of the subjects' positive attitude towards English in general.

As Dalvit (2004) asserts, *language attitude* is a subjective disposition to respond favourably or unfavourably to a language (Baker 1992; Edwards 1994); it is the intrinsic inclination which speakers of different languages or language varieties have towards each other's language and their own language (Nodoba 2008).

This favourable attitude towards EFL was further reflected by the subjects' wish to increase the number of hours of the EFL course with major access to foreign university undergraduate exchange programmes. Thus the subjects appeared extrinsically³¹ motivated to learn EFL.

There is an interdependence of sources of motivation which interfaces with individuals' attitude. According to Gardner (1985) motivation in relation to attitudes towards language learning:

[...] refers to the combination of effort plus desire to achieve the goal of learning the language. [...] Motivation to learn a second language is seen as referring to the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this activity.

With regard to the subjects' desire to learn and extend their learning, when asked if they read extensively in L1 and EFL, and what extra-curriculum material they read, the **majority of the**

³¹ Extrinsic and intrinsic motivation refer to sources of the influence, whether within oneself or perceived as being from the outside (Deci and Ryan 1985; McDonough 2007)

subjects responded that they limited their reading only to what is required by the EFL course, nor did they read any specialised texts in L1 nor English outside the academic context.

When they read, they preferred generic text types (§items 2-4. Questionnaire 2. Ch.5):

- (i) 83% - considered it more useful to read generic texts in English downloaded from internet” (§ item 7. Table 5.27. *ibid.*);
- (ii) 51% of the subjects did not read in English to access specialised material (§ item 6. Table 5.27. *ibid.*).

Therefore, only a minority read specialised texts which could enhance their academic literacy development.

The subjects’ reluctance to read additional specialised material in English reflects Dalvit’s (2004) assertion that the conative component of attitude indicates what actions the subjects are ready to take in relation to EFL, which in this case is refusing to read and/or learn further in EFL.

I see this attitude as related to situational and personal interest, which are two main dimensions of interest involved in the reading process (Alexander and Jetton 2000). Individual or personal interest involves the readers’ preferences for certain passage topics or subject matter, and this sustained interest exists before reading a particular text (Hidi 1990; Schiefele 1992).

Situational interest refers to interest caused by situational variables, such as the text and test. In this particular case, I see situational interest to be closely related to the curriculum and teaching methods in the L1 and EFL courses at the UNIFI Faculty of Economics.

Moreover, the subjects’ preference for generic texts in L1 as well as in EFL, might be linked to interest, an intrinsic motivation, that is evoked by text through topics or ideas that are of universal appeal. Such topics are easy to recollect, easy to concentrate on and contain some unforgettable information which the subjects can picture in their mind. Recollection includes *vividness* (Hidi and Anderson 1992; Schraw 1997; Brantmeier 2006) which, the subjects’ responses suggest, was not provoked by economics or business texts.

Different sources of interest with prior domain-specific conceptual knowledge indicate that my findings - unlike Brantmeier's (ibid.) who focussed on topic familiarity - provide additional insights in comprehension results when reading different types of texts at tertiary level in domain-specific contexts.

The reading of generic types of text indicate that **the subjects were not sufficiently motivated academically by the context-reduced environment in which they studied.** Motivation, as McDonough (2007) argues, is a property of the learner but it is also a transitive concept: teachers can motivate their students by providing a supportive and challenging learning environment (ibid.: 369).

Because of this, the subjects seemed to have been insufficiently motivated to have an approximate idea of what would be useful to support and enhance their domain-specific conceptual knowledge. They did not realise that reading more extensively would have been beneficial to their academic competence in L1 and proficiency in EFL, and it would have provided them with a professional framework within which topics are debated.

The subjects' lack of awareness of their needs is further reflected in their responses to the reading strategies adopted in L1 and in EFL and is linked to their motivation at secondary school level and tertiary level. (§Ch.5: Table 5.28, 5.29.).

The breakdown analysis indicated that most subjects learnt to apply reading strategies to texts in English at school (item 9) and that they considered the use of reading strategies in English as linked to motivation to read and learn in English (item 11). Moreover, they referred to their economics/business concepts learnt in Italian L1 (item 17) and tried to understand the 'aboutness' of the text from its title (item 14). The **69%** who learnt to use reading strategies at university (item 12) used reading strategies in English which they did not implement whilst reading in Italian (item 13).

However, the pattern which emerged in Questionnaire 1, that is, specific strategies were adopted less than generic ones, was confirmed by **58%** who searched for keywords in paragraphs to comprehend the concepts expressed whereas **42%** did not (item 15). The percentage dropped further with regard to those who tried to understand the semantic or verbal class the terms in the co-text belonged to (item 16). Interestingly, the majority stated they applied the reading

strategies learnt in class when reading outside the academic context (item 21). Only a minority affirmed they first used reading strategies, then translated the text to feel assured (item 19), or referred only to their world knowledge whilst reading (item 20). Barely 2% responded they translated word for word the text (item 18).

The findings on the strategies used at secondary school level suggest that most subjects learnt to use reading strategies in Italian as well as in English and not to translate texts word for word, although evidence from the classroom denies the latter. **At university level the findings show a higher frequency of strategies used whilst reading in English than in Italian and confirm the results of Questionnaire 1, that is, a low use of specific reading strategies to derive meaning.**

The subjects, therefore, appear to have a generic knowledge of reading strategies and/or a limited knowledge of their application. They declare they refer to their conceptual knowledge, although the tests in the pilot study and main study underlined a constraint on bidirectional Italian↔English conceptual transfer.

As already mentioned, low motivation might originate from the approach adopted during the L1 economics and EFL courses which, due to schedule time constraints, and/or transmission teaching, aim at providing the subjects with instruction limited to passing their final examinations.

But there might be several other variables which interact with each other, as Gillette's (1994) study of the correlation of learner goals and L2 success demonstrates. A learner's goal in learning a FL depends on a learner's social history and the use value ascribed to foreign languages in his or her environment.

My findings confirm this. **While the subjects were not prepared to make an effort to read specialised EFL texts related to their context-reduced environment, their value system - their beliefs concerning the value of the language (its usefulness to communicate with speakers of that language, its access to better jobs, etc) - was particularly high and was linked to extrinsic motivations.** The most frequently indicated were:

- (i) to learn more than one foreign language (item 24, *ibid.* Ch.5);

- (ii) to learn English as a FL (item 23, *ibid.*);
- (iii) to use English not as a FL but as a SL (second language) with Italian in/outside the academic context (item 25, *ibid.*), in a formal and informal context.

The subjects, though, were not willing to invest much of their time in learning EFL in the context-reduced environment.

These findings point to attitudes not being “enduring entities” (Potter and Wetherell 1987), if they are compared to the previous responses. However, they suggest a strong affective component which implies that some kind of feelings are attached to EFL and that the component is ‘frequently socially constructed in relations of power changing over time and space, and possibly coexisting in contradictory ways in a single individual’ (Peirce 1995:17).

Moreover, the subjects’ willingness to accept English as a SL which would co-exist with their L1 might be seen as an *investment* (Peirce *ibid.*), since the subjects “invest” in learning EFL, in order to increase their cultural capital (Bourdieu 1991). Thus, **language skills are viewed by the vast majority of subjects as a valuable asset.**

Although most responses conveyed a favourable attitude to English, other responses underlined that English is still considered a foreign language: **52%** of the subjects responded they learnt English only during their lecture hours (item 22, *ibid.*); **31%** attended or would attend a course of English abroad (item 29, *ibid.*); whereas the most frequent access to English outside the academic context is by listening to music (item 28, *ibid.*).

These results clearly show that English is still perceived, by a number of subjects, as an external imposition; a foreign language to be learnt prevalently in a context-reduced environment. Despite this, the majority of subjects responded they would learn more than one foreign language, although only a minority would be willing to learn English abroad, or would interact with foreigners or watch programmes in English. Once again, this underlines their **instrumental purpose in learning the language.**

Nevertheless, a vast majority would approve English becoming a second language in/out of the university, i.e., used interchangeably with Italian in many contexts, thus manifesting a positive attitude toward English and foreign cultures within an established European view. This attitude was further underlined by **100%** subjects who declared they learnt English to travel abroad more

easily (item 35, *ibid.*) and by **96%** who even identified themselves with the Anglo-Saxon culture (item 36, *ibid.*).

My data show the opposite to Peirce's (*ibid.*) which claim that the idea of investment involves the need of full integration in countries where English is spoken. This might be related to the particular complex linguistic patterns of European countries shaped by history, geographical factors and mobility of people.

At present, the European Union recognises 20 official languages and about 60 other indigenous and non-indigenous languages which are spoken over the geographical area. Thus, on the one hand, it is important for EU citizens to master foreign languages. As such, multilingualism fosters the ideal of a single Community with a diversity of cultures and languages.

On the other hand, within this varied context, English is increasingly assuming the role of *lingua franca*, even though EU citizens are expected to be able to communicate in two foreign languages (Special Eurobarometer. European Commission 2006).

Moreover, my results, in line with Norton (2000), point to an interconnectedness of identity and language. Through language a person negotiates a sense of self within and across different places at different points in time, within a social context wherein s/he interacts with other people. In other words, the subjects shape an identity distinct from other people and understand their possibilities for the future.

My data further suggest, contrary to LoCastro (2001), that the subjects, although not in an ESL community environment, are willing to be viewed as competent users of EFL and to relate to the other individuals in a foreign society by preserving their Italian identity. Hence, **I see EFL as prevalently the means to professional success with a partial social integration function.**

The aim of professional success is highlighted by the data indicating that the subjects considered English to be important to their current and future lives. English is learnt by **98%** to have more job opportunities in Italy or abroad (item 32, *ibid.*), and to widen their cultural knowledge, to communicate with foreigners (items 33, 34, *ibid.*).

The importance granted to English is underscored by **83%** indicating that everyone should be able to communicate in English (item 39, *ibid.*). This particular item reflects a vast campaign encouraging learning English for job mobility reasons within the EU. **The subjects' concerns are, therefore, decidedly instrumental; they do not consider their Italian identity is threatened by English language proficiency. This attitude has historical cultural socio-economic roots.**

Indeed, this strong identity might be seen as linked to the low **40%** who associated speaking English to a social value and the only **10%** who declared they liked the language (item 37). The latter confirms the value of English as mainly linked to job opportunities and/or to travelling.

The motivations behind these responses are connected to disliking English as a language per se, and to the low esteem of the language having added social value. The issue originates directly from the subjects' Italian identity and it shows how language is not a neutral medium of communication but can be understood with reference to its social meaning and the learner's social identity.

Regarding this point, the data indicate that **85%** of the subjects thought that what they learnt in the English courses could be useful outside the academic context (item 40), and that the economic/business concepts in Italian were learnt by referring to and/or expanding already possessed specific concepts (item 44).

By contrast, only **11%** indicated that they learnt their economics/business concepts in Italian by rote (item 43). Interestingly, these responses appear to contrast strongly with the reading performance scores in L1 and the reading proficiency scores in EFL, previously discussed. These contradictions might derive from false responses, similar to the ones provided to questionnaire 1 on the reading meta-cognitive strategies used, or from a distance between the meaning attributed to the questions by the author and the subjects.

Remarkably, the subjects expressed satisfaction (**79%**) with their L1 curriculum (item 46), although the economics/business courses were considered too theoretical (item 47). Nevertheless **73%** would prefer an easier access to Socrates-EU university exchange courses (item 49) organised by various universities across Europe, and a higher number of hours per week

dedicated to learning English in the Faculty (item 42) itself. However, fewer subjects were in favour of economics/business courses lectured in English in the faculty (item 48).

The responses signal the strong link between Italy and the rest of the EU Community and how the subjects consider themselves integrated into the EU context. In addition, the data demonstrate, on one hand, the subjects' awareness of how, by studying in a university abroad, they could access the EU working world more easily; on the other hand, of the pressure to employ Italians speaking English in the business world.

However, their positive attitudes decreased when less than half of the total number of subjects responded that the Faculty offered insufficient services to aid them in their studies (item 50) – 48% - and only **42%** indicated that they learnt economics/business concepts through practical applications to real cases.

The percentages of the responses suggest, as discussed in the previous RQs, that **the subjects thought they were granted insufficient opportunities to learn their economics concepts in their L1 by applying their conceptual knowledge to different practical cases. Furthermore, their dissatisfaction increased with the English curriculum, which was judged for its content as not meeting future job requirements (item 41).**

These responses clearly underline the prevalent instrumental value attributed by the subjects to English and to their economics curricula in the context-reduced environment of the Faculty.

The findings suggest in response to RQ5 that there are various linkages between the attitudinal and contextual factors in the subjects and their development of EFL reading proficiency and transfer of conceptual knowledge. Their attitude towards EFL was prevalently positive yet characterised by a strong identification with their Italian culture, history and language.

This, in contrast with Peirce (1995), suggests their inclination towards English is mainly driven by the idea of ‘investment’, that is, instrumental purposes to achieve professional success. **The idea of integration, as referred to by Peirce (ibid.), or of acculturation to the target language appears to be limited due to the different context.**

What seems to prevail is a sense of belief the subjects hold of themselves which encourages them to aspire to study and work abroad and to be mobile in the EU. This is in contrast with previous research and it calls for a reconsideration of the impact on attitudes of individual differences, particularly those related to the preservation of the learners' identity as L1 and EFL speakers.

Furthermore, **the overall positive attitude towards EFL mismatches with the subjects' lack of motivation to read extensively domain-specific texts in English. This I view as strictly related to contextual factors.**

As previously discussed, the paucity of interaction during most lectures and the tendency to encourage rote learning in transmission teaching impedes an appropriate development and use of conceptual knowledge in L1 and capability of bidirectional Italian↔English conceptual transfer whilst reading. On the other hand, the EFL hours provided per semester are limited compared to the subjects' actual needs. Therefore, the context-reduced environment instead of a context enhancing knowledge development has the negative effect of limiting it. The interpretation of the various factors co-occurring in affecting transfer, leads me to my last RQ.

6.7 Research Question 6

What are the essential features of bidirectional Italian↔English transfer?

In conclusion, from the above interpretation of the data analysis results (§Ch.5), transfer between domain-specific conceptual knowledge in Italian texts and the comprehension of translation equivalent or similar concepts in English texts, is a complex process.

It is affected by a multitude of factors, such as cognitive and linguistic components, previous knowledge, cognitive and meta-cognitive reading strategies, motivation, attitude, learning strategies, teaching methods, individual variables, the individual's total environment and many more.

However, my data clearly indicate that **domain-specific conceptual knowledge in L1 is an essential component in the bidirectional Italian↔English transfer between domain-specific Italian texts and the comprehension of translation equivalent or similar concepts in English texts.**

All these variables operate synchronically and synergistically but a variation in any of the components impacts significantly on the Italian L1 subjects' reading performance in L1 and proficiency in EFL. Therefore, **transfer is not an automatic process** but rather, in this embedded case study, **it correlates partially with different degrees of bidirectional Italian↔English conceptual knowledge transfer.**

When transfer does not take place, the data showed it to be linked to an insufficient development of domain-specific conceptual knowledge networks in L1, which otherwise would allow concepts to be reframed as Lakoff (2005) suggests in both L1 and in EFL according to exigencies.

Moreover, transfer results as connected to the capacity of Italian L1 subjects to use structural components when reading and comprehending an Italian text as well as when reading and deriving meaning in an equivalent English text. To do so, it is crucial to connect the semantic units across the texts for construing and/or deriving meaning.

Domain-specific concepts are expressed through lexical items from which interdependent networks that constitute texts as semantic units are created. Therefore, if these networks are not recognised, or if one stratum is not related to the other, meaning is not construed or derived and transfer does not take place. However, just linking the surface grammatical and structural parts of texts does not necessarily entail attaining higher levels of abstraction. Deriving meaning from a text requires the capacity to infer from the text the essential clues that are re-elaborated and reconstructed personally at a higher level.

Consequently, **a high competence of domain-specific conceptual knowledge is a crucial variable, since faulty domain-specific conceptual knowledge in Italian L1 can have variable effects on meaning derivation, when reading and comprehending an Italian text and when reading and deriving meaning in an equivalent text in EFL.**

As my data indicate also, **the text's syntactic complexity influences comprehension, since it is related to the subjects' cognitive-linguistic competence.**

Among the main features characterising the process of transfer is the importance of using extensively and specifically cognitive and metacognitive reading strategies. **My findings**

indicate that the information and the strategies learned or acquired in one language – L1 - are necessary to comprehend a text written in another language.

The data also emphasise a relation between a limited use of reading strategies and a decrease in performance and proficiency reading scores of linguistically more complex texts. This is linked to the non-linear transfer of knowledge across genres, in particular between the textbook and news genre.

As the results highlighted, **the use of generic reading strategies with a partial transfer of domain-specific conceptual knowledge generates inability to derive meaning from lexically dense texts as, for instance, economics textbooks or business news articles. Thus, the importance of using appropriate cognitive and meta-cognitive reading strategies lies in their leading toward comprehension, the outcome of transfer.**

Moreover, **the attitudinal and contextual factors impact significantly on the development of EFL reading proficiency and bidirectional L1↔EFL conceptual knowledge transfer.** It is attitude and motivation that strengthen the desire to learn to read, to transfer conceptual knowledge and to estimate what is required of us.

The results indicate that **the subjects' attitude towards learning economics conceptual knowledge in Italian L1 and learning and reading in EFL is positive, the main motivation being an instrumental one.** However, the subjects considered more important reading generic texts in L1 and EFL than domain-specific material. Clearly, **the context-reduced Italian L1 and EFL curricula should be included among the many variables that affect such attitudes.**

The key answers to the Research Questions of this study are summarised in Table 6.2 below:

Table 6.2 Key Answers

RQ	Key Answers
1	Limited/good domain-specific L1 knowledge differentially affects subjects' comprehension of translation equivalent domain-specific conceptual knowledge in English texts. Different levels of reading ability in Italian L1 correlate with different degrees of bidirectional Italian↔English conceptual knowledge transfer.
2	There is a limited relation between Italian L1 speakers' capacity to use structural components when comprehending Italian texts and deriving meaning in equivalent English texts. Insufficiently grounded L1 domain-specific knowledge will not aid building of meaning in L1 nor in EFL.
3	Increasing syntactic complexity and domain-specific language have a significant negative effect on textual comprehension. They impact negatively at intra-genre and inter-genre level preventing a monotonic relation between the subjects' reading proficiency across news and textbook genre.
4	Reading strategies are used more whilst reading in English than in Italian L1. This suggests lower the reading ability level in a language, stronger the need for support. There is a direct relation between the limited use of reading strategies and poor reading performance/proficiency of linguistically complex texts.
5	There are linkages between attitudinal, contextual factors, EFL reading proficiency development and conceptual knowledge transfer. The subjects' attitude towards learning economics conceptual knowledge in Italian L1 and learning and reading in EFL is positive. The main motivation for studying EFL is instrumental.
6	The answer to this RQ summarises the previous RQs' answers.

As discussed earlier in this chapter and summarised above in Table 6.2, **the data suggest a close relation between the cognitive functions and the contextual ones.** These include several, for instance:

- (i) the method of learning;
- (ii) the method of teaching economics concepts in L1;
- (iii) how the concepts are transferred to English during the EFL courses;
- (iv) the limited lecturer-student interaction during EFL lectures;
- (v) the tendency to encourage rote learning in transmission lecturing.

All these functions cause an inappropriate conceptualisation and generalisation of concepts to different domains and genres in L1 and EFL.

The final chapter of this thesis provides conclusions to this study. It also gives recommendations, on the basis of available evidence from the key findings, as to possible changes in the EFL curriculum in order to increase EFL reading proficiency of academic and professional texts for specific purposes.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

7.1. Aims of the study

The aim of this case study was to investigate the use of general and domain-specific knowledge and metacognitive strategies in genre-based foreign language reading for academic and professional purposes, on the part of Italian subjects comprehending economics and business texts in Italian and English, in the Faculty of Economics at the University of Florence (UNIFI), Italy.

In the Literature Review, I focussed on some of the approaches addressing Second Language Learning, in order to highlight some outstanding unanswered questions about bidirectional Italian L1↔EFL conceptual transfer in domain-specific texts (economics and business) of different genres (textbook and news), and about the cognitive and meta-cognitive reading strategies used by the subjects to understand such texts.

The research read and cited in this thesis has not distinguished between the learning of EFL from the learning of ESL, even though in the wider language education/applied linguistics context there are often clear distinctions made between ESL and EFL. Ignoring these differences, though, means ignoring the different constraints, associated to the social context, that non-native language learning and acquisition undergo. Most approaches to FLL have, nevertheless, preserved a narrow perspective on the importance of social context and social relations interrelated with the process of conceptual transfer between languages.

Transfer has for long been seen as the negative interference of an L1 with EFL being learnt, or as the cognitive strategies employed by learners to make sense of input and output while learning an FL, or, more recently, as an automatic process. The tendency has therefore been to exclude from its analysis many variables, such as domain-specific knowledge, context, attitude and motivation, which instead impact on the process.

Such limits might have derived from the over-generalisation of the Canadian bilingual immersion context, as discussed in Ch.3, which differs from a foreign language context, as the

Italian tertiary educational level investigated in this study. The analysis of transfer, therefore, whilst depicting a two stage competence development – BICS and CALP – has ignored more complex dimensions.

Thus, given the need to consider other factors affecting bidirectional L1↔EFL conceptual transfer, I considered Vygotsky's socio-cultural developmental theory. Since the theory is based on concept formation taking place through the use of language with social functions, I took it as a framework in my attempt to meet the aims of this embedded case study and to draw a series of conclusions.

7.2. Conclusions and Implications

The answers given to the Research Questions (RQs), interpreted in Ch.6, and summarised in Table 6.2 allow me to draw the following conclusions and implications:

7.2.1 The impact of variables on transfer

The qualitative and quantitative results from the first RQ indicate that, at tertiary level, transfer is not an automatic process but it is influenced by many variables that operate synchronically and synergistically. A variation in any of the components impacts significantly on the Italian L1 subjects' reading performance in L1 and proficiency in EFL. Specifically, in bidirectional Italian↔English transfer, L1 domain-specific knowledge plays a crucial role because transfer will not take place if a subject cannot establish organised hierarchical interrelationships between concepts in L1 and abstract them to implement them in a novel EFL domain.

Clearly, transfer appears to be affected by the subject's capacity to reframe in L1 as well as in EFL. But reframing can take place in the L1 learner only if the concept triggers something in the subject's mind. In turn, this can occur only if the concept has been fully understood through conscious thinking and the use of language.

As mentioned in Ch.3, concepts cannot be developed into conscious form without language, as they are clearly related to language. Words are a means through which thought is formed and expressed, although connectionists argue that conceptualisation can be considered independent of language. Within the Vygotskian framework, concepts are the outcome of intellectual

operations in which mental functions, such as memory, attention, and inference, participate and in which also language can act as the guide. So, if the development of conscious awareness cannot take place through writing (Emig 1977), thinking cannot be propelled towards conceptual understanding, which holds a primary role in context-reduced language proficiency (§Ch.3).

7.2.2 Transmission teaching and receiving knowledge: precluding higher cognitive functions

I see the difficulty of applying domain-specific concepts to novel domains, therefore, as closely related to the transmission teaching method and the passive learning method in L1 at the UNIFI Faculty of Economics (§Ch.2). Such methods preclude higher cognitive functions construed to achieve explanatory power, ability to transcend existing conceptions, by transforming thought into words through interaction. If interaction, application, or the possibility of putting things into written words is prevented, thinking cannot be clarified, and it cannot provide a means for symbolising thought, which is an integral part of the process of concept formation (§Ch.3 and Ch. 6).

The impact of transmission teaching and receiving learning in L1 was referred to by interviewee 1. The latter related insufficient interaction to the subjects' tendency to be very pragmatic, operative and practical in solving most business issues in class, although he did not recognise that his teaching method was only pseudo-interactive. In simple words, he did not go beyond asking the subjects if they had any questions on the topic he presented. Hence, the subjects' aversion toward, or difficulty in, discussing in L1 domain-specific concepts in the classroom can be justified.

This strong resistance to being involved as an active/interactive learner and to reasoning autonomously originates from both the subjects' high school instruction and from the style of lecturing which is highly lecturer-centred and perpetuated by nearly all the academics at UNIFI (§Ch.6). This asymmetrical relation implies that knowledge is simply a-critically and unidirectionally transmitted from academics to students without encouragement to dialogue.

Furthermore, the answer to RQ1 suggests that an inadequate assimilation of economics concepts, cognitive activities, L1 reading performance and EFL proficiency derive from the exclusion of writing from nearly the entire L1 and EFL UNIFI faculty of Economics curricula. Thus, the subjects are *de facto* limited to learning economics and business concepts in L1 and transferring

them, whilst reading in English, only by receptive skills. There is no active engagement in processing the meanings of economics and/or business concepts with both a framework of structures, forms and words to be used, and a good reason and purpose for such activities.

7.2.3 The EFL competence-model curriculum and the exclusion of writing

This limitation is confirmed by the UNIFI Faculty of Economics EFL curriculum's objectives, accessible on the Faculty's Homepage (www.cce.unifi.it). The course's official formative objective is attaining a partial B2 (EU Language framework) EFL level competence in reading comprehension and oral performance in English for specific purposes, i.e. economics and business (§Ch.2). It clearly tends to be dominated by a competence-based model in which knowledge is equated to training and is defined as the capacity to do things in the most efficient and appropriate way as a result of the application of the norm, as Fairclough (1992) argues. The norm is presented as a choice between efficiency and inefficiency of the individual who must work autonomously to attain personal goals of competence.

The exclusion of writing, thus, from the EFL and from nearly all the economics/business curricula, together with interaction reduced to the minimum in the classroom, prevents subjects from:

- (i) actively examining the text through sharp observational skills;
- (ii) processing the meanings of economics and business concepts received in lectures and what they read;
- (iii) judging what they comprehend on the bases of their values, convictions and reasons.

Indeed, concept learning entails conscious and unconscious acquisition, receptive skills such as listening and reading, but also productive skills such as speaking and writing.

7.2.4 Institutional planning and EFL reading proficiency: a close relation

As to this point, the measured and qualitative answers to RQ2 indicated, firstly, a limited relation between the subjects' capacity to use the grammatical and structural components when reading and comprehending an Italian text. Secondly, that the difficulty increased when the subjects connected the various grammatical and structural components in the texts to derive meaning in

EFL. Both findings suggest, once again, that they are the outcome of an inadequate curriculum based on the assumption that the subjects already have sufficient grammatical and/or structural knowledge.

But these issues are connected to other contextual factors, such as the UNIFI management, which has not intervened to reduce under-staffing, the generally insufficient facilities which constrain the EFL curriculum and its active implementation by academic staff teaching the EFL course.

As mentioned in Ch.2, this curriculum is based on a two hours per week EFL course addressing subjects already at a B1 level of EFL. In other words, they must already possess a pre-intermediate grammatical and structural knowledge which will allow them, according to the EU Language Framework, to already be able to understand written texts of generic or working environment topics and the description of events, plans and feelings included in personal letters. If the subjects have not already met the B1 level, they are advised to attend appropriate English courses at the UNIFI inter-faculty Language Centre.

The limited number of hours per week of EFL lectures and the high number of subjects (approximately 50-60 per class) attending those lectures, in an environment where the medium is otherwise Italian, negatively affect learning, pedagogy and determine over-crowded classrooms (§Ch.2).

Overcrowding derives from the open admission policy in Italian universities allowing any student who passes his/her secondary school final year standard nation-wide examination to enrol. Such a situation has led to writing being excluded from the curricula and interaction being minimal. So, the context-reduced environment constrains the curricula which, in the case of EFL, is reduced to the minimum in preparing subjects to pass only a partial B2 EFL level examination.

As expected, such a context leads the subjects to be void of the notion of self-efficacy, as McDonough (2007) argues, that is, how learners estimate their capabilities and how they manage themselves. This is confirmed by their negative evaluation of interaction in the classroom and their declared preference for lecturer-centred lectures as from the Interviews (§Appendices J and K).

7.2.5 Pedagogy, Italian as L1 and EFL curricula and inter-genre reading proficiency

The above issues are furthermore related to the answer to RQ3, that is, the measured minimal monotonic relation between the subjects' reading proficiency across the two different genres in English - the news genre and the textbook genre. The answer qualitatively showed their partial knowledge of discourses reflecting the communicative purposes of a domain and genre. It also suggests that the subjects were not adequately taught how to read academic-level economics and media business articles and thus did not understand and use the different structural and rhetorical features that differentiate one genre from another. This suggests, once again, a close connection between pedagogy and the L1 and EFL curricula.

The answer to RQ3 further highlights how the subjects were not provided with the means to attain one of the main objectives of the EFL course, that is, to understand and use the textual features characterising the economics and business genres (www.cce.unfi.it). The subjects were not involved in adequately developing genre knowledge by noticing the social practice of the texts, the specificity of the communicative situation and purpose related to the textual, formal and semantic features of text construction. The subjects' difficulty in comprehending EFL syntactically complex economics textbook excerpts is most likely to be a direct consequence of the EFL course being insufficient content-wise and inadequately articulated to educate the subjects to refer to their own personal generic and domain-specific conceptual knowledge – intertextuality (§Ch.3) – whilst reading.

Additionally, the quantified low L1 subjects' reading performance in tasks set on advanced level L1 textbook genre excerpts (§Ch.5) indicated that L1 economics concepts were understood by only a limited number of subjects. As suggested (§Ch.6), such issues are enhanced by rote learning which impedes high-road transfer, and by the absence of domain-specific conceptual transfer learning techniques from the curricula. The assumption at tertiary level is that learning transfer may be assumed with basic reading and writing skills, but this assumption in fact does not extend beyond basic skills, as confirmed by the answers to the above RQs.

7.2.6 Specific cognitive and metacognitive reading strategies as means toward reading comprehension and transfer

The answers to RQ4 indicated, on the contrary, that the process of transfer is closely related to the extensive use of cognitive and metacognitive reading strategies learned or acquired by the subjects in Italian L1 to comprehend a text written in EFL. The measured data also showed that despite the similarities in L1 and EFL reading, the lower the reading ability level in L1, the stronger the need for support in EFL.

Conversely, a use of generic reading strategies is connected both to a decrease in performance and proficiency reading scores of linguistically more complex texts (in L1 and EFL), and to the non-linear transfer of knowledge across genres, in particular between the textbook and news genres in EFL. This points to a correlation between both unidirectional transmission teaching and learning method, and to externally imposed structures and strategies rather than only to the subjects' resources in construing meaning in L1.

As already mentioned, the use of prevalently generic cognitive and meta-cognitive strategies do not automatically lead to comprehension, nor are they an automatic outcome of learning and reading EFL. This implies that the use of appropriate cognitive and meta-cognitive reading strategies significantly affects the process of transfer. Moreover, the problem of reading per se is not usually assessed, and is not recognized by the subjects, nor the academics, who do not often change the levels of the textbooks used to more adequate ones for their students, even though the outputs from reading are actually assessed (Dreyer and Nel 2005). This is because, as [Levine et al. \(2000: 1\)](#) state, the ability to read academic texts is considered one of the most important skills that university students of ESL and EFL need to acquire.

It is, therefore, the academic institution that has to provide the necessary adequate education; the subjects cannot be expected to acquire successful reading strategies incidentally, without a full realisation of what is expected of them. In other words, as Dreyer and Nel (*ibid.*) argue, the curriculum would simply perpetuate the subjects' inappropriate use of strategies with no awareness of the limitations of their habitual ways of reading and learning or of more productive options for completing academic tasks. Thus, the contextual factors further limit the subjects'

motivation to develop their L1 domain-specific knowledge with various impacts on transfer whilst reading in EFL.

7.2.7 The interrelation between attitudinal, motivational and contextual factors

As to this point, the interrelation of the measured answers to RQ5 indicated that the attitudinal and contextual factors impact significantly on the development of EFL reading proficiency and transfer of conceptual knowledge between L1 and EFL. The attitude towards EFL was prevalently positive, though characterised by strong assertion of their Italian identity preservation. In other words, the subjects were willing to be viewed as competent users of EFL and to relate to the other individuals in a foreign society by preserving their Italian identity. This might result from considering EFL as a major means to professional success with only a partial integrative function.

The answers to RQ5 also underlined the subjects' inclination to learn English mostly for extrinsic instrumental reasons. English was seen as an 'investment' which could lead them to professional success. This positive attitude towards EFL is, however, undermined by the subjects' lack of motivation and required personal effort to read extensively domain-specific texts in English, which might be referred to the subjects' limited satisfaction experienced in this activity (§Ch.6). So, whilst the subjects expressed a favourable personal attitude towards EFL, on the other hand, they were not ready to make the required effort to read any specialised texts in L1 nor English outside the academic context.

This emphasises the insufficient academic motivation generated by the context-reduced environment in which they are studying. As McDonough (2007) argues, motivation is a property of the learner, but it is also a transitive concept: teachers can motivate their students by providing a supportive and challenging learning environment (ibid.: 369). In other words, if the learner's needs for competence, relatedness and autonomy are well catered for, extrinsic motivation can be internalised, integrated and transformed to become self-determined (Ryan and Deci 2000). However, if such a learning environment is not provided, the subjects will be unaware of what they need to become proficient.

These issues suggest a close relation between the attitude and motivation of the subjects towards learning EFL and the negative impact on their cognitive functions by the economics/business and

EFL curricula. This context-reduced environment, instead of enhancing knowledge development, has the effect of constraining the subjects' domain-specific conceptual knowledge development.

7.3 Key findings

Flowing from the above conclusions and implications, the key findings of this study can be summarised as follows:

- (i) At a tertiary level, Italian L1 subjects' reading comprehension of translation equivalent domain-specific conceptual knowledge in advanced level genre-based EFL texts, for academic and professional purposes, is affected differentially by their limited or adequate L1 domain-specific knowledge. That is, when the subjects' domain-specific conceptual knowledge network is insufficiently developed in L1, transfer does not take place and this negatively impacts on L1 reading comprehension.

This suggests, as indicated by recent research (Bernhardt 2005), that actually domain-specific conceptual transfer, and not simply L1 reading achievement, is the highly significant variable involved in the subjects' EFL reading process. Domain-specific conceptual transfer is, however, complimentary to the subjects' capacity to use structural components when reading and comprehending L1 and EFL texts, as underlined in point 2.

- (ii) The data indicate that there is little relation between the L1/Italian subjects' capacity to use the structural components when reading and comprehending an Italian text and when reading and deriving meaning in an equivalent English text. If the subjects scored high on the surface grammatical and structural MCQs of the economics textbook excerpts in L1, they were nonetheless incapable of using this knowledge to attain a higher level of abstraction in answering equivalent MCQs in English.
- (iii) For my subjects reading in EFL, prior generic knowledge plays a limited supportive role in comprehending a written text. It is an increasing syntactic complexity of the text that can have a significant negative effect on its comprehension as much as the domain-specific conceptual knowledge language it encodes. These factors impact negatively to varying degrees at the intra-genre level as well as at the inter-genre level, thus preventing a monotonic relation in reading proficiency across the news and textbook genres.

- (iv) Cognitive and metacognitive reading strategies were used more whilst reading in English than in Italian L1. Those used by my subjects were the generic type, hence ineffective and with little strategic intent coming from limited task demands of secondary school with which students access university under-prepared for the reading demands placed upon them.

The data also underline how the application of reading strategies is not an automatic outcome of subjects' learning and reading EFL but it is affected by inadequate curricula and pedagogy. This not dealing with comprehension difficulties at several levels of text analysis, and not explicitly teaching how to create and retain a lasting representation of the important points of a text, by interacting and writing, limits the subjects' reasoning to low-road transfer.

- (v) Transfer across Italian and EFL tertiary level domain-specific texts is to be seen as a multi-factorial process highly affected by the cognitive functions and the attitudinal, motivational, contextual factors in which it takes place. Notably, the type of L1 and EFL curricula based on aggregation of content, the quantitative pedagogical methods instead of qualitative ones adopted (§7.4.2), and the related methods of learning are strictly connected to UNIFI Faculty of Economics management and programme planning. This impacts by limiting the subjects' motivation and attitude towards reading different genres of economics and business texts in EFL.

The interrelation of these diverse factors, and many more affecting transfer, indicate that the process should be analysed within a wider conception which I have termed contextual syncretism (§Ch.4 and 6). That is, context in its innumerable aspects (material, mental, personal, interactional, social, institutional, cultural and historical) created by subjective experience in a reality which is simultaneously independent and outside each human subject whilst intricately and dynamically inter-woven with all human socially situated activity.

7.4 The value and contribution of my research

The value and contribution of my research to advancement of knowledge about language-conceptual transfer is based on by my attempt to analyse transfer at undergraduate level in EFL text processing from a wider perspective to the past.

I have accounted for L1 domain-specific knowledge, cognitive and metacognitive reading strategies in L1 and EFL, L1 competence and EFL proficiency, context, attitude and motivation in the transfer process against an array of variables. These are learners' personal variables dynamically interrelated with the context-reduced environment and affected by curricula planning, pedagogy and teaching methods which I have defined as contextual syncretism.

By viewing these variables as syncretic, I have scrutinised the conditions in which contexts the transfer process take place, as well as the way undergraduate readers are taught EFL and how they apply or do not apply language-conceptual transfer strategies.

I have furthermore contributed to filling the lacuna in EFL reading comprehension research involving tertiary level readers by statistically measuring the interdependent variables involved in the process and by interpreting in both languages, Italian and English, the data collected and the patterns which result for the quantitative analysis. This study is therefore not affected by the researcher's monolinguality and qualitative approach which has characterised much EFL learning research.

7.5 Recommendations

On the basis of the issues discussed, the recommendations I make are addressed to the UNIFI Faculty of Economics management and its EFL course programme planning.

7.5.1 The staffing issue

Eliminating under-staffing would impact directly on the number and type of EFL courses with different teaching methodologies offered to the subjects. Specifically, to date, the lecturer-student ratio is usually 1:50, which makes effective interaction hardly possible, or 1:35, if the

academic repeats the same lecture six times (§Ch.2), turning lecturing into an un-motivating, demoralising professional act. In either case the effectiveness of the lectures is clearly strongly reduced.

Adequate staffing would, on the contrary, allow for active and interactive learning and teaching in the curricula. **It would indeed allow the preparation of the subjects for a full B2 EFL level examination by including writing in the curriculum**, even if writing is excluded from the undergraduate economics curricula of most Italian universities for the above mentioned reasons. This however does not completely justify UNIFI Faculty of Economics' management and planning.

Writing, allows to learn by doing, by depiction in an image and by restatement in words. That is, by involving hand, eye and brain, writing marks a powerful multi-representational mode for learning, as Bruner (1971) argues, since the writer must engage in the deliberate structuring of the web of meaning (Vygotsky 1962). Writing would therefore support the development of the subjects' conceptualisation and generalisation of concepts in L1 and their bidirectional L1↔EFL transfer together with adequate cognitive and metacognitive reading strategies.

7.5.2 The curriculum issue

The reconsideration of UNIFI's management and planning could, furthermore, affect positively the EFL academic curriculum and pedagogy. The scores of the tests and questionnaires provide evidence for the insufficient importance given to the performance level of the students in the EFL course. The findings suggest that the EFL course takes place without giving appropriate importance to the way high performance could be assured through curriculum change and reform.

Indeed, the educators of the EFL course have almost always taught quantitatively, i.e., conceiving learning as the aggregation of content quanta of declarative or procedural knowledge, wherein the process of learning is to aggregate by assimilation and to accurately reproduce the assimilated contents (Biggs 1992). The choice to adopt the quantitative tradition is related to the exigencies of having to satisfy the needs of large numbers of subjects attending EFL courses at the Faculty of Economics every academic year. The EFL curriculum has consequently been

designed to deal with over-crowded classrooms and has been based on teaching assessment tasks which require low level processing of concepts and consequent low-road transfer of knowledge.

Evidence from this research indicates that, by contrast, the designers-planners of the EFL curriculum should reconsider setting its objectives in the qualitative mode rather than the current quantitative one. That is, following Biggs (1996), it should stress content as meaningful, that evolves cumulatively, and that is intrinsically valuable, having “horizontal” interconnections with other topics and subjects, and “vertical” interconnections with previous and subsequent learning in the same subject.

Specifically, the EFL curriculum should include the identification of instructional techniques that can promote transfer, inductive approaches to derive language rules, short task-based activities including writing within the domain-specific (Lea and Street 1998) to extend the subjects’ L1 knowledge to EFL. Such activities would have the purpose of the subjects producing something, reaching a conclusion and/or creating a domain-specific text type within a pre-set frame. The subjects’ EFL writing skill could be developed whilst increasing their capacity for noticing, learning how texts are structured and, consequently, using the grammatical and structural, lexical-semantic, and syntactical and discourse features which characterise the two genres considered in this case study.

As Qi and Lapki (2001) argue, noticing is broadly taken as awareness of a stimulus via short-term memory, wherein stimulus is referred to as anything that arouses one’s attention, in particular, for this research, with respect to language (input or output). In other words, noticing of input is exceedingly important. Also noticing as a result of students’ writing of texts in EFL plays an important role in their EFL development. Furthermore, language-related noticing in an output writing condition, along with performance in the process, would not only promote subsequent problem-solving performance during the composing activity but would also trigger noticing of relevant information from modelled EFL data to be provided to the subjects.

Moreover, noticing the variation of the prominent textual features of the two genres and text types considered in this study could make students aware of their functionality and diverse application to suit the communicative needs of the different disciplines. This, following Butler (2007), could build a relevant writing support for those having to write also at a post-graduate level.

The EFL curriculum should, additionally, include more reflection on how students should plan, monitor and evaluate their thinking by teaching them specific cognitive and metacognitive reading strategies. As the findings of this study indicate, the subjects tend to limit their knowledge and implementation to the more generic strategies. It would be then essential to directly address more specific ones, such as Problem-Solving Strategies which are localized and used when problems develop in understanding textual information (e.g., checking one's understanding upon encountering conflicting information, re-reading for better understanding, just to mention some); Support Reading Strategies, which involve using the support mechanisms aimed at sustaining responsiveness to reading (e.g., the use of reference materials like dictionaries and other support systems), as Mokhtari and Reichard (2004) claim.

These strategies interact with and support each other when used in the process of constructing meaning from text but their use could also lead subjects to think in ways that are consistent with high-road transfer.

7.5.3 The pedagogy issue: from the quantitative to the qualitative method

Given the Faculty's reconsideration of its management and planning, the pedagogy of economics concepts in L1 could avoid focussing only on the subjects' performance and consider, instead, how each component in a teaching and learning situation — student, academic, teaching method, assessment tasks, institution, and so on — influences the other in an interactive system (Biggs, 1996; Street 2003). An interactive pedagogy would thus concentrate, within the constructivist framework, on how the subjects build on their L1 economics/business conceptual knowledge to transfer them to English during their EFL courses.

As already mentioned in Ch.3, constructivism emphasises that people actively construct knowledge for themselves, using categories derived from social interaction rather than from observation; within this framework, knowledge is not something waiting “out there” to be discovered, nor is it transmitted from a knowing teacher to an absorbent subject (Biggs 1996).

Literacy practices, instead, involve the capacity of learners to adapt to new ways of understanding, interpreting and organizing knowledge (Lea and Street 1998) based on socially epistemological principles. The educators' task would, by contrast, be to transform their objectivist transmission teaching approaches to a constructivist one. This would mean

considering the subject's comprehension of taught content as gradual and cumulative, with qualitative changes taking place in the nature of both what is learned, and how it is structured.

This student-centred, interactive pedagogy should stimulate the subjects to actively construe meaning in L1 reading domain-specific texts and derive meaning whilst reading EFL economics/business texts by referring to their L1 conceptual knowledge. This would therefore develop their knowledge about new areas of study (ibid.). Whilst doing so, the subjects should be 'scaffolded' to derive meaning by connecting not only the grammatical, structural, lexical and discourse features through the texts, but also by inferring textual main clues and re-elaborating them at a higher level.

As this research shows, if this goal is not achieved, an increasing syntactic complexity of the text will limit the subjects' comprehension as much as the domain-specific conceptual knowledge language it encodes. These components, as seen, negatively affect comprehension at an intra-genre and inter-genre level. Thus, the educators, rather than expecting passive students to reproduce the content of various texts and the description of their textual features, should instead focus on teaching the subjects to notice and understand the interconnections between elements in a text, or the meanings and implications of what they are. It is essential that the subjects' learning grow in complexity by changing qualitatively rather than taking place cumulatively.

The educators' aim should be not just the development of the subjects' meaning potential, conceived as the construction of discipline based knowledge, but the development of the resources of action, speech, thinking and writing which entails learning (§Ch.6). For instance, if learners applied their domain-specific conceptual knowledge to case studies by writing about them, they could participate effectively and creatively in further practical, social and intellectual activity (§Ch.3).

7.5.4 The impact of qualitative pedagogy on learning EFL at tertiary level

It is therefore important for the subject to construct his/her own understanding in EFL by using what s/he already knows to make sense of new information so that his/her transformed understanding is a personal reconstruction. This entails building a metacognitive model within the mind of the subject which enables him/her to choose the most efficient strategies for problem solving.

The impact of qualitative pedagogy in EFL would, therefore, generate higher forms of conceptual understanding which, in turn, would motivate the subjects to learn with consequent feelings of “ownership” (ibid.). Such a commitment involves processes of a higher cognitive level than rote learning: searching for analogies, relating to previous knowledge, theorising about what is learned, and deriving extensions and exceptions would enhance bidirectional Italian-English transfer whilst reading for academic and professional purposes.

The subjects’ learning should then be characterised by in-depth involvement, that is, wide reading, monitoring their reading, discussing with educators and peers, applying their conceptual knowledge to novel domains and thinking about what they learn in extra-curricular time.

If UNIFI Faculty of Economics does not reconsider its management and planning, the perpetuation of such assessment-focused, quantitative forms of the EFL curriculum and pedagogy will reinforce superficial approaches to learning and it will continue affecting the subjects’ understanding which would at best lead to superficial, inadequate performance and results in EFL. The subjects would simply adapt to the institutions and their teaching systems of which they are a part.

7.5.5 Modes of assessment

On reflection, even though I have not dealt with this issue in the foregoing text, the modes of assessment used in the EFL course require scrutiny. Measuring students’ EFL proficiency largely through multiple choice question (MCQ) format tests, however well-validated these might be, provides very limited nor conclusive evidence of such proficiency. This MCQ testing is, perhaps, an economical mode of testing, given understaffing and limited pedagogic resources. Further research is therefore needed to establish if such testing is in the interests of students’ EFL proficiency development or if it is simply in the interests of academics’ use of their time

7.6 Suggestions for further research

This case study and its findings have suggested that the use of general knowledge and metacognitive strategies in genre-based EFL reading for academic and professional purposes, at the tertiary level, involves many inter-related factors.

More specifically, I have attempted, through my embedded case study, to show that bidirectional conceptual transfer between Italian and EFL genre-based reading in an academic environment is

significantly affected by contextual syncretism (§Ch.4 – 4.3.3). This entails the intertwining of the social context, including its historical and institutional aspects, with the social relations and the subjects' voices reflecting their mental activities, personal attitudes and motivations. This broader perspective significantly extends current research in this area.

All the variables considered and emerging from my research play a significant role in the reading comprehension process to the point that a variation in any of the components impacts significantly on the reading performance in L1 and on the reading proficiency in EFL. This also confirms my initial assertion that transfer is not an automatic process, even though Italian and English are cognate languages.

The data analysed and interpreted in this case study, however, have the purpose of achieving an understanding of the particular case in its complex reality (§Ch.4), and due to its small size, I cannot provide generalisations. These could be attained by further research on the topic in EFL context at a tertiary level, since attention has prevalently focussed separately on the linguistic, contextual, attitudinal and motivational factors in ESL contexts.

The present findings could, therefore, be expanded to other tertiary level context-reduced environments by analysing a primary language other than Italian, whilst considering the cognitive, metacognitive, contextual, attitudinal and motivational components, which differentially impact on the bidirectional transfer between L1 and EFL texts of different genres. The findings could be contrastively analysed to highlight the impact, on EFL reading proficiency, of components similar to this research but in a diverse context-reduced environment. The results could lead to a series of wider conclusions.

Finally, this case study could also be extended, at tertiary level, to an ESL context in which the medium of education is not only English. The analysis of the subjects' reading proficiency at an inter-genre and intra-genre level could provide multi-fold insights on the:

- (i) features of intra and inter-genre variance in EFL reading proficiency at tertiary level with L1 other than Italian or English;
- (ii) subjects' logical relationships and internal representations of domain-specific conceptual knowledge associated with meaning;
- (iii) subjects' cognitive and meta-cognitive reading strategies used;

- (iv) subjects' attitude and motivation affected by the academic context.

The findings could contribute to a comparison with those of this embedded case study and highlight the impact of an EFL vs. an EFL context-reduced environment on similar components of transfer. The results could lead to curriculum and pedagogy improvements.

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APPENDICES

APPENDIX 1 - TEXT A

LA CONCORRENZA MONOPOLISTICA

I. Nella concorrenza perfetta ci sono così tante imprese che vendono lo stesso prodotto, che nessuna di esse può influenzare il prezzo di mercato. Nel monopolio c'è solo *un* venditore nel mercato, che fissa così il prezzo che vuole. La maggior parte dei mercati di beni e servizi, però, non sono né perfettamente concorrenziali né puramente 1. A) oligopolistici B) monopolistici C) monopsonici, ma si trovano in una situazione intermedia *fra* i due estremi, avendo più di un'impresa ma non abbastanza da potersi definire perfettamente concorrenziali. Chiamiamo tale condizione *concorrenza imperfetta*.

II. Ci sono due diversi tipi di concorrenza imperfetta: la *concorrenza monopolistica* e l'*oligopolio* (che analizzeremo nel paragrafo successivo). Osservate che la concorrenza monopolistica combina caratteristiche sia della concorrenza perfetta sia del monopolio; da qui il suo nome. Come nella concorrenza perfetta, vi sono 2. A) tutti B) pochi C) un gran numero di acquirenti e venditori e facilità di entrata e di uscita; i ristoranti, le lavanderie, praticamente tutti i negozi al dettaglio sono quasi sempre dei concorrenti monopolistici; in ognuno di questi casi, il mercato presenta un numero elevato di venditori ed è facile avviare un'attività o cessarla se gli affari vanno male. 3. A) Benché B) Ma C) Finché, a differenza della concorrenza perfetta, i venditori offrono un prodotto leggermente diverso gli uni dagli altri; non troverete mai due caffè o due negozi di alimentari perfettamente identici; per questa ragione un'impresa in concorrenza monopolistica 4. A) deve alzare B) può alzare C) era solito alzare il prezzo (fino ad un certo punto) e perdere *alcuni* clienti, ma conservare gli altri, che apprezzano il suo prodotto anche se 5. A) gli B) lo C) esso fa pagare a un prezzo leggermente superiore rispetto ad altri concorrenti. Di conseguenza, un'impresa monopolistica è soggetta a una *curva di domanda* 6. A) decrescente B) crescente C) lineare e, da questo punto di vista, assomiglia di più a un monopolista che a 7. A) una perfettamente concorrenziale impresa B) un'impresa concorrenziale perfettamente C) un'impresa perfettamente concorrenziale.

III. Che cosa differenzia il prodotto? A volte è la *qualità*; in altri casi si tratta di una questione di gusto più che di qualità. Un altro tipo di differenziazione dipende dall'ubicazione. Due librerie possono essere perfettamente uguali (per ampiezza di scelta, atmosfera, ecc), ma voi preferirete quella più vicina a casa o all'ufficio. In ultima analisi, 8. A) un B) Ø* C) la differenziazione ha una forte componente soggettiva: un prodotto è diverso quando la gente pensa che lo 9. A) fosse B) sarebbe C) sia, a prescindere dall'esattezza della sua percezione, ma le implicazioni economiche sono sempre le stesse: se l'impresa aumenta il prezzo non perderà tutti i clienti. La Figura 5 illustra la situazione di un'impresa in concorrenza monopolistica, la Disinfestazione Setti. Il grafico mostra la curva di domanda cui è soggetta l'impresa (*d1*) assieme alle curve del 10. A) ricavo marginale B) ricavo totale C) ricavo unitario, del costo marginale e del costo totale medio. 11. A) Operano B) Operando C) Operato in concorrenza monopolistica, la Setti è in concorrenza con molti altri servizi di disinfestazione della sua zona. Quindi, se alza il prezzo, alcuni dei suoi clienti passeranno alla concorrenza.

IV. Se la disinfestazione Setti 12. A) è B) fosse C) fosse stato un monopolio, l'impresa continuerebbe a realizzare un profitto economico per un tempo 13. A) indefinito B) definito C) breve, poiché le barriere all'entrata escluderebbero qualsiasi potenziale concorrente. Ma nella

concorrenza monopolistica, dove tali barriere sono assenti, le imprese non 14. A) potevano B) possano C) potrebbero godere a lungo del profitto; tutti i nuovi venditori entrerebbero nel mercato, attratti dai profitti che vi si possono guadagnare. Alcuni clienti della Setti passerebbero 15. A) da B) a C) in queste nuove imprese; in corrispondenza di ogni dato prezzo, la Setti si troverebbe a servire meno case e la sua curva di domanda si sposterebbe verso sinistra. L'entrata di nuovi concorrenti continuerebbe e la curva di domanda seguirebbe a spostarsi verso sinistra finché la Setti e gli altri venditori non guadagnassero un profitto economico 16. A) positivo B) nullo C) negativo.

V. Se un'impresa in concorrenza monopolistica vuole espandere la produzione, può ridurre il prezzo, può cioè spostarsi lungo la sua curva di domanda. Ma 17. A) questa B) quella C) questo non è l'unica soluzione; poiché l'impresa offre un prodotto differenziato, può venderne di più convincendo i 18. A) consumatori B) distributori C) supermercati che il suo prodotto è migliore di quello delle altre imprese. Sforzi diretti in tale senso, se efficaci, 19. A) sposteranno B) avranno spostato C) spostavano la curva di domanda dell'impresa verso destra. Ogni azione che un'impresa intraprende per incrementare la domanda del proprio prodotto (esclusa la riduzione di prezzo) è chiamata concorrenza non di prezzo. Un servizio migliore, le garanzie del prodotto o una pubblicità per informare i clienti di tali caratteristiche sono esempi di concorrenza non di prezzo che però è molto costosa e tali costi 20. A) includono B) vengono inclusi C) saranno stati inclusi nella curva ATC di ogni impresa che si alza di conseguenza.

\emptyset^* = nessun articolo

1. L'idea principale nel paragrafo I è che
 - A) nei mercati difficilmente esiste una concorrenza perfetta
 - B) nessuna impresa influenza i prezzi
 - C) tutti i mercati sono perfettamente concorrenziali
1. Nel paragrafo II, in una concorrenza monopolistica
 - A) i prodotti si distinguono solo in base al loro prezzo
 - B) i prodotti si distinguono in base alla domanda
 - C) i prodotti si distinguono per prezzo ed altri fattori
2. Nel paragrafo IV, la concorrenza monopolistica si differenzia dal monopolio perché
 - A) impedisce l'entrata sul mercato di nuove imprese
 - B) è aperta all'entrata sul mercato di nuove imprese
 - C) non offre profitti troppo alti alle imprese
3. Nel paragrafo V, la concorrenza non di prezzo indica
 - A) che un'impresa può aumentare la propria produzione senza ridurre i prezzi
 - B) che un'impresa può aumentare la propria produzione solo investendo in pubblicità
 - C) che un'impresa può aumentare la propria produzione solo screditando la concorrenza

APPENDIX 2 – TEXT B

COSTI DI AGGIUSTAMENTO DEI PREZZI ED EFFETTI REALI DELLA MONETA NOMINALE

I. In che modo l'equilibrio monopolistico differisce da quello concorrenziale? Se ogni produttore agisse sulla base di criteri concorrenziali l'equilibrio 1. A) situerebbe B) si situerebbe C) si situa nel punto di intersezione tra la curva del costo marginale e la curva di domanda. Dato che la curva di domanda deve passare per *B*, 2. A) questo B) quello C) quella significa che in concorrenza perfetta le scorte monetarie reali di equilibrio sarebbero più elevate: il livello di produzione sarebbe maggiore e il livello dei prezzi inferiore. Si noti che 3. A) molti B) pochi C) tutti i produttori hanno lo stesso grado di potere monopolistico: quest'ultimo quindi non ha effetti sul prezzo relativo dei beni prodotti. La concorrenza monopolistica invece influisce sul livello dei prezzi, che risulta 4. A) più elevato B) meno elevato C) uguale rispetto a quanto avviene in concorrenza perfetta. Il benessere, misurato dal surplus di 5. A) consumatori B) dettaglianti C) investitori e produttori è più elevato in concorrenza perfetta. In concorrenza monopolistica la moneta è neutrale, esattamente come in concorrenza perfetta. Ci chiederemo cosa succede se i *price-setters* sopportano dei costi quando modificano i loro prezzi. Prima però sarà utile riformulare l'inefficienza di un sistema di concorrenza monopolistica 6. A) in B) a C) su termini di esternalità pecuniarie – o di “domanda aggregata”.

II. Questa esternalità sorge in quanto una diminuzione dei prezzi nominali di un singolo produttore provoca due effetti. Innanzitutto 7. A) essa B) esso C) essi aumenta la domanda per il bene di quel produttore; in secondo luogo, diminuendo il livello generale dei prezzi, 8. A) incrementerà B) incrementa C) incrementando il livello delle scorte monetarie reali, e quindi favorisce un aumento della domanda e della produzione dei beni di tutti gli altri produttori. In equilibrio, i prezzi sono tali che il primo effetto sui profitti è 9. A) marginale B) pari a zero C) altamente positivo al primo ordine: ogni produttore non ha nessun incentivo a cambiare i propri prezzi. Ma dato che in concorrenza monopolistica la produzione è inizialmente al di sotto del 10. A) ottimo livello socialmente B) livello socialmente ottimo C) ottimo livello socialmente, il secondo effetto produce 11. A) un rallentamento B) una stasi C) un incremento nel benessere. Ma nessun singolo produttore ha un incentivo a ridurre il proprio prezzo, poiché sperimenterebbe una perdita di profitti del secondo ordine.

III. 12. A) Tuttavia B) Sebbene C) Dunque questa esternalità comporti un livello di equilibrio della produzione troppo basso, essa non implica che la moneta sia non neutrale in assenza di costi associati a variazioni di prezzi. Supponiamo invece che produttori supportino dei costi di aggiustamento dei prezzi. Tali costi 13. A) possono B) devono C) erano soliti essere molto bassi, e questo viene sottolineato dal ricorso al termine “costi di listino”. Possono comunque includere più dei semplici costi fisici della stampa di nuovi listini o di nuove etichette di prezzo. 14. A) Torniamo B) Torneremo C) Torneremmo a considerare più in dettaglio la loro natura.

IV. Più precisamente, si 15. A) supponga B) supponeva C) supporrebbe che ogni produttore supporti costi di aggiustamento dei prezzi del secondo ordine. Invece di un piccolo decremento dei prezzi data la moneta nominale, consideriamo un piccolo aumento della moneta nominale dato 16. A) un B) il C) Ø* livello generale dei prezzi. Si verifica un aumento del primo ordine della produzione e del benessere, ma ogni produttore ha solo un incentivo del secondo ordine ad aumentare il proprio prezzo. In assenza di costi di listino 17. A) il sistema B) industria C) l'economia tornerebbe al livello iniziale di produzione con prezzi meno elevati. Ma la presenza di costi di listino del secondo ordine previene questo aggiustamento, almeno fintanto che i costi sono superiori alla perdita di profitti associata al mancato adeguamento dei prezzi. Questo è il punto chiave della questione: se bassi costi di listino rendono ottimale per i produttori non cambiare i prezzi a fronte di cambiamenti della domanda, i prezzi nominali non si aggiustano, e la variazione nello stock di moneta nominale influenza la produzione ed esercita effetti del primo ordine sul benessere.

V. Questa argomentazione assume come dato il fatto che i produttori che non aggiustano i prezzi, aumentino il livello di produzione per soddisfare la domanda. Ma per piccole variazioni della moneta

nominale, questo deve essere vero: i prezzi sono inizialmente superiori ai 18. A) costi marginali B) costi globali C) costi nominali, cosicché i produttori vorranno aumentare la produzione anche se non aggiustano i prezzi. Nella Figura 8.1. i produttori aumentano il livello di produzione fino al punto *B*, con un livello dei prezzi immutato.

VI. Il risultato è che in presenza di costi di aggiustamento dei prezzi, questi possono non modificarsi, e la moneta nominale può influenzare la produzione. La parte interessante è che i costi di aggiustamento dei prezzi sufficienti a evitarne le modificazioni possono essere molto più piccoli degli effetti sul benessere 19. A) i quali B) cui C) da cui derivano dal non aggiustamento dei prezzi stessi. Questo risultato è stato sottolineato da Akerlof e Yellen, che ne misero in luce la generalità: in ogni economia con distorsioni, la decisione di un individuo di reagire o meno a una modifica dell'ambiente in cui opera provoca una perdita privata esclusivamente del secondo ordine; ma la presenza di distorsioni rende probabile il fatto che gli effetti di benessere 20. A) sono B) erano C) siano del primo ordine.

\emptyset^* = nessun articolo

1. L'idea principale del paragrafo I è

- A) l'inefficienza della concorrenza monopolistica
- B) la differenza tra concorrenza monopolistica e concorrenza perfetta
- C) come misurare il benessere

2. Nel paragrafo II, i produttori in concorrenza monopolistica

- A) non sono interessati a ridurre i prezzi
- B) hanno ogni interesse a ridurre i prezzi
- C) hanno un forte incremento di profitti

3. Secondo il paragrafo IV, con i costi di listino

- A) esiste una relazione tra prezzi e domanda
- B) esiste una relazione tra scorte di moneta nominale, produzione, benessere
- C) i prezzi vengono aggiustati

4. Nel paragrafo VI, i costi di aggiustamento dei prezzi

- A) possono avere un effetto limitato sul benessere
- B) possono avere un effetto duraturo sul benessere
- C) di sicuro non modificano i prezzi

APPENDIX 3 – TEXT C

COSTS OF CHANGING PRICES AND REAL EFFECTS OF NOMINAL MONEY

I. How does the monopolistically competitive equilibrium differ from a competitive equilibrium? If each producer acted competitively, the equilibrium 1. A) would be B) will be C) would have been at the intersection of the marginal cost and demand curves. Since the demand curve must go through *B*, equilibrium real money balances would be higher under perfect competition: output would be higher and the price level lower. Note that because 2. A) some B) any C) all producers have the same degree of monopoly power, monopoly power has no effect on the relative price of produced goods. Monopolistic competition affects, instead, the relative price of goods in terms of money, the price level, which is 3. A) lower B) equal C) higher than under competition. Welfare, measured by 4. A) consumer B) client C) distributor and producer surplus, is higher under perfect competition. Under monopolistic competition money is neutral just as it is under perfect competition. We now ask what happens if price-setters face costs of changing prices. Before we turn to the costs of changing prices, it will be useful to recast the inefficiency of the monopolistically competitive economy as the result of a pecuniary – or “aggregate demand” – externality.

II. This externality arises because a decrease 5. A) in B) into C) at an individual producer’s nominal price has two effects. First, 6. A) they B) it C) its decreases the demand for that producer’s good; second, by decreasing the price level, it 7. A) increases B) increasing C) will increase real money balances, and thus increases demand and output for all other producers. In equilibrium prices are such that the first effect on profit is 8. A) highly positive B) marginal C) equal to zero to a first order: each producer has no incentive to change her price. But, because output is initially below its 9. A) socially optimal level B) level socially optimal C) optimal socially level under monopolistic competition, the second effect leads to an 10. A) decrease B) instability C) increase in welfare. But no individual producer has an incentive to decrease her own price given other prices, since she would experience a second-order loss in profit.

III. 11. A) Thus B) Although C) Because of this externality leads to too low an equilibrium level of output, it does not imply that money is nonneutral in the absence of costs of changing prices. Suppose, however, that producers face costs of changing prices. The costs 12. A) must B) would C) may be small, as is emphasised by calling them “menu costs”. They may, however, include more than just the physical costs of printing new menus or changing labels, and we 13. A) return B) will return C) would return to consider their nature later.

IV. More precisely, 14. A) assuming B) assume C) assumed that each producer faces second-order costs of changing prices. Now, instead of a small decrease in the price level given nominal money, consider a small increase in nominal money given 15. A) the B) a C) Ø* price level. Output and welfare increase to a first order, but each producer has only a second-order incentive to increase her price. Absent menu costs, the 16. A) warehouse B) economy C) economics would return to the initial level of output with higher prices. But second-order menu costs, as long as they are larger than the second-order loss in profit associated with not changing the price, will prevent this adjustment. 17. A) That B) These C) This is the key point: if small menu costs make it optimal for producers not to change prices when demand changes, nominal price will not adjust, and the change in nominal money will affect output and have a first-order effects on welfare.

V. This argumentation takes as given that producers who do not adjust prices will accommodate the higher level of demand so that output will increase. But for small changes in nominal money, this must indeed be true: price initially exceeds 18. A) marginal B) global C) intangible cost so that producers will willingly increase output even if they do not adjust prices. In figure 8.1 producers will be willing to increase output up to point *B* at unchanged prices.

VI. The result is that in the presence of costs of changing prices, prices may not adjust, and nominal money may affect output. The interesting part is that costs of changing prices that are sufficient to prevent such adjustment may be far smaller than the welfare effects – positive or negative – 19. A) which B) who

C) whose follow from nonadjustment of prices. This point was first made by Akerlof and Yellen who emphasised its generality: in any economy with distortions the decisions by one individual to react or not to react to a change in his environment entails only a second-order private loss; the presence of distortions, however, makes it likely that the effects on welfare 20. A) will be B) were C) will have been of first order.

Ø* = no article

1. The main idea of paragraph I is

- A) how to measure welfare
- B) the inefficiency of monopolistic competition
- C) the divergence between purely competitive and monopolistically competitive equilibrium

2. In paragraph II, producers in a monopolistic competition

- A) are interested in reducing their prices
- B) are not interested in reducing their prices
- C) have a high increase of profits

3. According to paragraph IV, with menu costs

- A) prices are adjusted
- B) a relation between demand and price is created
- C) a reciprocal influence is created between nominal money, output and welfare

4. In paragraph VI, the costs of changing prices

- A) do not certainly modify prices
- B) may have an effect on welfare
- C) may have a long-term effect on welfare

APPENDIX 4 – TEXT D

IN CHINA, TIDE MAY BE TURNING AGAINST POLLUTERS

In the three years since he set up an environmental hotline, Wang Canfa has heard thousands of heartbreaking stories from people who say their health or livelihood has been imperilled by industrial pollution. The complaints come from victims all across China, but when Wang decides he can help, his response 1. A) seemed B) has seemed C) seems more typically American. “The first thing we do is send lawyers and reporters”, said Wang, director of the Beijing-based Centre for Legal Assistance to Pollution Victims.

The centre is one of hundreds of environmental nongovernmental organizations 2. A) which B) who C) whom have sprung up in China in recent years. The development reflects not only a 3. A) greater B) least C) smaller awareness about environmental issues on the part of the Chinese public, but also a greater willingness to challenge authorities and force improvements. And despite China’s image as a 4. A) dictatorship party B) single party dictatorship C) party single dictatorship that frowns on civic activism and avoids public accountability, the victims sometimes succeed.

Hanging on the walls of Wang’s office in western Beijing are banners 5. A) who bear B) bore C) bearing inscriptions of thanks from those who received his help. One is from the residents of a neighbourhood in the northern port city of Tianjin who were plagued by a coal heating plant operated by a government real estate developer. 6. A) Their B) Theirs C) They complaints were ignored, and when the company began building a second plant, the residents took matters into their hands, blockading the road to the new plant and shutting down 7. A) a B) the C) an construction work. Then Wang alerted the press and sent in his lawyers. They determined that the company 8. A) violating B) had violated C) has violated regulations by allowing more than five years to pass between getting approval for the new plant and building 9. A) it B) its C) them. The company paid 1,000 yuan in compensation to each 100 of the residents, and built a new bicycle shelter for them. Most importantly, it adopted a cleaner design for the new heating plant.

Cases such as 10. A) that B) these C) this one show that China’s growing body of environmental law and its fast-developing legal system now give ordinary people the possibility to protest that was previously unimaginable. Today, China’s state-run media carry frequent accounts of lawsuits and public protests against plastics 11. A) factories B) farms C) industry, paper mills, and smelters across the country, launched by angry citizens suffering from the pollution these industries generate. In some of these reported cases, polluters have been forced 12. A) pay B) paid C) to pay compensation or make costly improvements to clean up their operations. For each successful case, however, Wang 13. A) would B) can C) might point to a failed one that illustrates China’s system in which courts and administrative agencies lack any independence. Local governments in China often run industrial enterprises themselves. Even when they do not, they rely on such enterprises to provide 14. A) works B) jobs C) duties, economic growth, and tax revenue.

However pressure from China’s increasingly aware public is likely to continue growing. According to a recent report from the U.S. Embassy in Beijing, environmentalism is one of the few fields in which social activism 15. A) is tolerated B) tolerates C) is tolerating in China, and college students are often at the forefront. The report said that as of last year, more than 180 student environmental groups were active in Sichuan province alone, working on issues such as public education, wetland conservation, and promotion of ecotourism.

16. A) Although B) Nevertheless C) Moreover the main priority of China’s central planners is to sustain annual economic growth rates above 7 percent, they also intend to invest \$85 billion 17. A) above B) over C) up the next five years in the battle to reduce industrial pollution.

Most Chinese environmental activists remain confident that the situation will improve. A major factor is the steady rise in Chinese living standards and China’s “green” foods industry. Last year, more than 1,200 Chinese enterprises 18. A) have produced B) produced C) are producing \$6 billion worth products that met the Ministry of Agriculture’s standards for such food. Although standards and regulations are less strict compared to those of many Western countries, these foods 19. A) should have been B) must C) should be free from harmful chemicals. Well-to-do Chinese urbanites are now paying high prices for such products. Green products accounted for only 3 percent of China’s food market last year, but officials predict that share will 20. A) increase B) decrease C) stabilise rapidly in years to come.

1. In the 1st paragraph, the hotline set up by Mr Wang Canfa provides
 - A) news updates on the environment
 - B) legal assistance to victims of industrial pollution
 - C) legal assistance to people with sad stories

2. The main idea of paragraph II is that the Centre
 - A) represents Chinese awareness and readiness to protest for environmental improvements
 - B) represents Chinese awareness of many environmental problems
 - C) reflects Chinese unwillingness to protest

3. According to paragraph IV, China's state-run media
 - A) do not report public protests against industrial pollution
 - B) report public protests against industries
 - C) report unsuccessfully public protests against industries

4. The author concludes the article
 - A) pessimistically because Chinese do not consume organic foods sufficiently
 - B) optimistically thanks to a rise in Chinese living standards
 - C) optimistically thanks to future improved living standards and higher sales of organic foods

APPENDIX 5 – TEXT E

THE CASE FOR PRIVATISATION

I. Privatisation exposes industries to market forces which would benefit consumers by giving them choice, and also lower prices as a result of efficiency gains within privatised companies. This increased exposure to market forces could, it is often argued, bring benefits in terms of product, factor and capital markets.

II. The breaking of a state monopoly (e.g. as regards UK telecommunications, Mercury competing with BT) would enable consumers 1. A) to choose B) choose C) to choosing whichever company produced the product (good or service) they preferred. That company would then generate more profit and expand in response to consumer demand, whilst competitive pressure would be put on the company losing business to improve its service or go into liquidation. BT's reductions in telephone 2. A) fees B) cost C) charges during 1994 were widely regarded as being at least partly in response to competition. The pressure to meet such external competitive requirements should also improve internal efficiency as changes 3. A) can justify B) can be justifying C) can be justified to workers and managers by the need to respond to the market. The old public corporations in the UK were seen by some as producer led, serving the interests of management and workers rather than 4. A) these B) that C) those of consumers and shareholders (in this case tax payers). Privatisation introduces market forces which help to stimulate a change of organisational culture.

III. Trade unions can be expected to discover that previous customs and work practices, 5. A) agree B) agreed C) are agreeing when in the public sector are now challenged by privatisation as the stance taken by management changes from when it was in the state sector in an attempt to increase corporate efficiency. Similarly competition in the product market 6. A) will have forced B) will force C) would force moderation in wage demands increasing efficiency. Privatisation contributes in these various ways to the creation of flexibility in labour markets, higher productivity and 7. A) costs unit labour reduced B) labour costs reduced unit C) reduced unit labour costs.

IV. The privatised company now has to rely on capital markets for the 8. A) raising B) arising C) rising of finance. Poor performance in meeting consumer preferences or in utilising assets may now result in a share price which underperforms the rest of the stock market and undervalues the company's assets, ultimately leaving 9. A) it B) them C) they vulnerable to takeover by a company able to make better use of the assets. Supporters of privatisation argue that in these ways the capital markets are likely to be better judges for 10. A) to allocate B) allocating C) allocated scarce investment finance to 'efficient' companies than public officials in state owned corporations.

V. By 1994, share ownership in the UK 11. A) has spread B) had spread C) spreads to 22% of the adult population, having being only 7% as recently as 1981. The total number of UK shareholders is about the same as the number of trade-unionists. This increase in shareholding is, it is argued, largely due to privatisation. New groups of shareholders have attracted and have become participants in the 'enterprise culture'. Additionally 90% of the employees in the privatised companies have become shareholders in the companies they work for, at least initially. Worker share-ownership is advocated as a means of involving workers 12. A) more closely B) less closely C) most close with their companies and achieving improved industrial relations. This has been taken further by selling companies to 13. A) their B) they C) its managers or the consortium of managers and workers. It is regarded as a highly successful example, profits having grown more than tenfold since privatisation.

VI. In the UK, privatisation has been seen as a way of cutting public sector borrowing requirement (PSBR). Privatisation has also been seen as a way in which the PSBR 14. A) must B) might C) can be cut. The finance of external borrowing by the nationalised industries is regarded in accounting terms as being part of public expenditure, which then ceases when these

industries become privately owned. Sales of assets or shares also increase 15. A) the government B) government C) a government income, again reducing the PSBR in the year of the sale. Over the period 1979/80 – 1993/94 the UK Treasury gained £55.2bn from asset sales. Privatisation made a very significant contribution to the budget surpluses of the late 1980s and to curbing the size of the budget deficits of the 1990s. Privatisation proceeds reduced the PSBR as a proportion of GDP 16. A) by B) of C) in more than 1.5% during the 1980s and in subsequent years.

VII. The activities of state-owned organisations are limited by their relationship with the government. They often lack financial freedom to raise investment capital externally because the government is concerned about restraining the 17. A) develop B) decrease C) growth of public expenditure. Privatisation is then seen as increasing the prospects for raising investment capital, thereby increasing efficiency and lowering prices. Indeed government control of investment expenditure by public corporations in the UK involves not only setting investment limits, but the need for official approval for specific capital projects of more than £20 million. 18. A) However B) Furthermore C) Despite, the nationalised industries also compete with other public sector services, such as health and education, for a share of public expenditure. In 19. A) much B) any C) many cases, diversification would be the sensible corporate response to poor market prospects in a particular industry or sector. Privatisation, then, is seen by its supporters as a means of greatly improving 20. A) economical B) economic C) economist performance.

1. The main idea of paragraph 2 is that

- A) privatisation causes companies to change their internal organisation
- B) privatisation causes companies to work more in favour of consumers and competitiveness
- C) monopolies are beneficial for managers and workers

2. In paragraph 4, supporters of privatisation argue that capital markets

- A) are certainly good judges in allocating finance
- B) probably judge well in allocating finance
- C) judge similarly to public officials in allocating investment finance

3. According to paragraphs 5 and 6 since privatisation

- A) nationalised industries have reduced their public sector borrowing
- B) most of nationalised industries have been sold to managers and workers
- C) nationalised industries have cut public sector borrowing and increased shareholders

4. In paragraph 7 state-owned organisations

- A) cannot often invest freely due to controls on public expenditure
- B) cannot invest as freely as private companies due to necessary prior approvals
- C) need more than £20 million capital projects to compete in services

APPENDIX 6 – TEXT F

COMPORTAMENTO MONOPOLISTICO

I. In un mercato concorrenziale esistono tipicamente numerose imprese che vendono un identico prodotto. Qualsiasi tentativo da parte di un'impresa di vendere il suo prodotto a un prezzo superiore a quello di mercato indurrà i consumatori ad abbandonarla e a rivolgersi alle imprese concorrenziali. 1. A) Inoltre B) Al contrario C) Di conseguenza, in una situazione di monopolio vi è un'impresa che vende un prodotto dato. Se il monopolista pratica un prezzo più alto perderà qualcuno dei suoi clienti, anche se non tutti.

II. In realtà la maggior parte delle industrie si trova in qualche punto intermedio tra i due estremi. Se un distributore di benzina di una piccola città aumenta il prezzo della benzina e perde la maggior parte dei suoi clienti, è ragionevole pensare che quell'impresa si debba comportare in modo 2. A) concorrenziale B) monopolistico C) monopsonico. Ma se un ristorante della stessa città aumenta i prezzi e perde solo pochi clienti, è altrettanto ragionevole pensare che abbia qualche potere di monopolio. Se un'impresa ha qualche potere di monopolio dispone di un maggior numero di opzioni di un'impresa in un 3. A) perfettamente concorrenziale mercato B) mercato perfettamente concorrenziale C) perfettamente mercato concorrenziale. Per esempio, può usare più complesse strategie di prezzo e di marketing che in un'industria concorrenziale. Oppure può tentare di differenziare il suo prodotto da quelli dei suoi concorrenti in modo da accrescere ulteriormente il suo potere di mercato.

III. Un monopolio produce in corrispondenza di un livello inefficiente di output, poiché lo riduce fino al punto 4. A) da cui B) in cui C) a quale i consumatori sono disposti ad acquistarne una unità addizionale ad un prezzo superiore al suo 5. A) profitto B) costo C) sovrapprezzo di produzione. Il monopolista non intende produrre tale output addizionale perché in questo modo 6. A) avrebbe fatto B) farebbe C) fece diminuire il prezzo di tutto l'output.

IV. Ma, se il monopolista potesse vendere diverse unità di output a prezzi diversi, le cose cambierebbero. Questa pratica è chiamata 7. A) la B) una C) Ø discriminazione dei prezzi. Generalmente gli economisti distinguono tre tipi di discriminazione dei prezzi. La discriminazione dei prezzi di primo grado descrive una situazione in cui il monopolista vende unità diverse di output a prezzi diversi e questi prezzi 8. A) devono essere B) può darsi che siano C) possono essere diversi per ogni consumatore. Questa situazione viene a volte definita discriminazione perfetta dei prezzi. La discriminazione dei prezzi di secondo grado, invece, descrive una situazione in cui il monopolista vende unità diverse a prezzi 9. A) maggiori B) diversi C) uguali, ma ogni consumatore che acquisti la stessa quantità del bene paga lo stesso prezzo. Quindi i prezzi differiscono a seconda della quantità del bene, ma non in relazione al consumatore. L'esempio più comune di questa situazione è lo sconto praticato sulle vendite 10. A) al dettaglio B) all'ingrosso C) rateali. La discriminazione dei prezzi di terzo grado descrive una situazione in cui il monopolista vende l'output a persone diverse a prezzi diversi, ma ciascuna unità di output è venduta ad un determinato consumatore allo stesso prezzo. Si tratta della forma più comune di discriminazione dei prezzi: un esempio 11. A) è costituito B) si costituisce C) è stato costituito dagli sconti per gli anziani, per gli studenti, e così via.

V. Quindi, definiamo monopolistica l'industria in cui è presente un solo produttore di grandi dimensioni, ma non è stato stabilito che cosa sia un'industria. Dovremmo definire industria l'insieme delle imprese che producono 12. A) consumi B) beni C) unità considerati stretti sostituti dai consumatori. Anche se un'impresa possiede il monopolio legale sui suoi marchi di fabbrica, così che le altre imprese non possono produrre esattamente lo stesso prodotto, è tuttavia possibile che le altre imprese 13. A) producono B) producano C) producessero prodotti simili. Dal punto di vista di un'impresa, le decisioni relative alla produzione dei suoi concorrenti saranno determinanti per decidere quanto produrre e quale prezzo 14. A) praticato B) per praticare C) praticare.

IV. Quindi, la curva di domanda per un'impresa dipenderà, in genere, dalle scelte relative alla produzione e dai prezzi praticati 15. A) alle B) dalle C) nelle imprese che producono prodotti simili. L'inclinazione della curva di domanda per un'impresa dipende da quanto simili sono i prodotti dei concorrenti. Se un gran numero di imprese nell'industria produce prodotti identici, la curva di domanda sarà per ciascuna di 16. A) esse B) essi C) voi sostanzialmente piatta. Ogni impresa dovrà vendere il proprio prodotto allo stesso prezzo delle altre. Se infatti alzasse il prezzo, portandolo al di sopra di quello praticato dalle imprese che vendono l'identico prodotto, perderebbe presto tutti i suoi clienti. D'altro lato, se un'impresa 17. A) possedeva B) avrà posseduto C) possiede i diritti esclusivi di vendita di un certo prodotto, può aumentarne il prezzo senza perdere i suoi clienti. 18. A) Alcuni B) Ogni C) Tutti clienti potrebbero orientarsi infatti verso i prodotti della concorrenza, ma non tutti. Il loro numero dipende da come i consumatori percepiscono la sostituibilità dei prodotti.

VII. Se un'impresa realizza un profitto in un'industria, vendendovi un determinato prodotto, mentre alla altre non è concesso di riprodurlo esattamente, è sempre possibile che queste ultime trovino conveniente entrare nell'industria producendo un prodotto simile ma differenziato. Gli economisti indicano questo fenomeno con il termine differenziazione dei prodotti: ogni impresa cerca di differenziare il proprio prodotto da quello delle altre imprese presenti nell'industria. Più la sua differenziazione è 19. A) inefficace B) efficace C) di breve durata, maggiore sarà il suo potere di monopolio – cioè più inelastica sarà la curva di domanda del prodotto. Un'industria come questa è detta in concorrenza monopolistica poiché ogni impresa si trova di fronte una curva di domanda del suo prodotto con inclinazione 20. A) negativa B) lineare C) positiva.

1. L'idea principale nel paragrafo 1 è che i consumatori
 - A) spesso cambiano comportamento nei diversi mercati
 - B) acquistano sempre il prodotto meno caro
 - C) preferiscono acquistare prodotti costosi nel mercato concorrenziale
2. Nel paragrafo 2 la maggioranza delle imprese
 - A) dovrebbe solo ridurre i prezzi
 - B) dovrebbe avere potere di monopolio per aumentare il potere di mercato
 - C) dovrebbe adottare più strategie di marketing per ampliare il proprio mercato
3. Secondo i paragrafi 3 e 4 il guadagno del monopolista si basa su
 - A) una insufficiente discriminazione dei prezzi
 - B) una produzione insufficiente ed una mancata discriminazione dei prezzi
 - C) una vendita differenziata dei prodotti e dei prezzi secondo l'acquirente
4. Nel paragrafo 7 un'industria è in concorrenza monopolistica
 - A) solo se riesce a riprodurre accuratamente un prodotto
 - B) se differenzia efficacemente il suo prodotto dagli altri realizzando un profitto
 - C) se riesce a realizzare un profitto

APPENDIX 7 – TEXT G

RATE HIKES A CONCERN

Alpha's move to increase loan rates may hide inability to cut operating costs

I. Alpha Bank's surprise move to increase consumer, mortgage and credit card rates last week may be partly explained by its desire to boost profits ahead of anticipated slowdown in retail lending this year. But the action, however, coupled with other major banks' expressed willingness to review 1. *a) their b) its c) theirs* own lending-rate structure despite the downward trend in euro interest rates, 2. *a) arises b) rises c) raises* serious questions about competition and competitiveness in the Greek banking system in general.

II. Alpha Bank, the country's second largest bank in terms of assets, 3. *a) announced b) has announced c) is announcing* last week a new set of higher interest rates on mortgages, consumer loans and credit cards and called 4. *a) them b) it c) they* a "rationalization of our pricing policy". Bank analysts and others were quick to point out that Alpha, which traditionally had a relatively large market share in the business loan category but a much smaller share in the lucrative consumer and mortgage loan 5. *a) section b) zone c) segment*, had taken the lead to cut consumer lending rates in the summer of 2000 and certain rates on mortgages in 2001 in a bid to capture market share in the 6. *a) local retail banking promising b) promising local retail banking c) banking retail promising local*.

III. 7. *a) Ø b) The c) A* same analysts noted that Alpha's top management perhaps felt it had captured a satisfactory market share in consumer and mortgage loans and decided to focus on boosting 8. *a) profits b) earnings c) expenditure* rather than go for a bigger slice in a year. Most analysts believe consumer lending growth 9. *a) will limit b) will be limited c) will have limited* to a low double-digit number at best and mortgage lending growth rates will slow down considerably after surpassing the 30 percent mark in 2002. The expected slowdown is attributed both to general 10. *a) economical b) economic c) economics* conditions as well as the Bank of Greece's introduction of stricter capital requirements for consumer loans in mid-January.

IV. Analysts also pointed out that the rate hike made room for a reduction in the same lending rates later on the heels of the European Central Bank's (ECB) likely decision to cut its main refinancing rate, which currently stands at 2.75 percent, 11. *a) by b) at c) in* 25 or even 50 basis points. The majority of the analysts predict a rate cut in March or April at the latest. 12. *a) Any b) Some c) Every* even speculated the move may have been aimed at making Alpha Bank more attractive to a potential foreign bank interested in linking up with the Greek bank by acquiring the latter's 10 percent equity stake.

V. 13. *a) Although b) In spite of c) Therefore* Greek bankers have not disputed that consumer and personal lending rates are among the highest in the European Union, they have long countered that their mortgage rates are among the lowest in the EU. This is hard to confirm, however. Figures 14. *a) providing b) who are provided c) provided* by UBS Warburg show that the spread on a typical variable rate mortgage ranges between 2.25 and 3.25 percentage points in Greece. This spread compares unfavourably to 0.7 points on average in France, 0.9 points in Germany, 1.5 points in Italy and 0.9 points for new mortgages in the U.K.

VI. If one takes into account the fact that the five major Greek banks offer deposit rates below the eurozone average, although Greek inflation is among the highest in the eurozone and the EU running at 3.1 percent in January, then one 15. *a) had to conclude b) has been concluding c) has to conclude* that these banks have an advantage for two reasons. First, their deposit base gives them access to cheaper funding for their assets than the market can provide for. Second, they can charge much 16. *a) highest b) higher c) high* lending rates to their customers for consumer loans than the majority of their peers in the eurozone.

VII. This combination of low deposit rates and high lending rates in consumer and mortgage categories explains their stated strategy of expanding into retail banking. It 17. *a) can b) will c) must* be explained, analysts point out, by the high concentration in the Greek banking sector as

well as high growth rates. They add that access to retail banking requires an extensive branch network and 18. *a) this b) that c) these* works as a barrier to new entrants, even large eurozone banks.

VIII. Faced with three consecutive years of decline, it is easy to understand why large banks want to increase their profits and satisfy their 19. *a) market makers b) shareholders c) creditor*. Analysts point out that their decision to increase rates in the context of high consumer and variable mortgage rates and very low deposit rates may be indicative of the limits they face in cutting their operational costs. This in turn rings alarm bells about their medium-term competitiveness in a field 20. *a) become b) to become c) became* more open to competition in the years ahead and a projected slowdown in high Greek GDP growth rates.

1. The main idea of paragraph *I* is that

- A) an increase of loan rates actually signals competitiveness problems in the Greek banking system
- B) Alpha Bank's increase of loan rates is an anticipation of the retail lending slowdown
- C) the major banks in Greece are to review their lending-rate structure

2. In paragraph *IV* the term 'hike' means

- A) a decrease
- B) an increase
- C) a walk

3. According to paragraph *V*, Greek bankers

- A) offer the lowest mortgage rates in the EU
- B) have among the highest mortgage rates compared to other EU countries
- C) have mortgage rates which vary every three months

4. According to paragraph *VIII* large banks

- A) have intention of increasing loan rates only because operational costs cannot be reduced
- B) have to just face three years of crisis
- C) have intention of increasing loan rates to face a limited cut of operating costs and future competition

APPENDIX A**ANSWER SHEET TEXT A
LA CONCORRENZA MONOPOLISTICA**

1	2	3	4	5	6	7	8	9	10
B	C	B	B	B	A	C	C	C	A

11	12	13	14	15	16	17	18	19	20
B	B	A	C	B	B	A	A	A	B

1	2	3	4
A	C	B	A

APPENDIX B**ANSWER SHEET TEXT B
COSTI DI AGGIUSTAMENTO DEI PREZZI ED EFFETTI REALI DELLA MONETA
NOMINALE**

1	2	3	4	5	6	7	8	9	10
B	A	C	A	A	A	A	B	B	B

11	12	13	14	15	16	17	18	19	20
C	B	A	B	A	B	C	A	A	C

1	2	3	4
B	A	B	A

APPENDIX C**ANSWER SHEET TEXT C
COSTS OF CHANGING PRICES AND REAL EFFECTS OF NOMINAL MONEY**

1	2	3	4	5	6	7	8	9	10
A	C	C	A	A	B	A	C	A	C

11	12	13	14	15	16	17	18	19	20
B	C	B	B	A	B	C	A	A	A

1	2	3	4
C	B	C	B

APPENDIX D**ANSWER SHEET TEXT D
IN CHINA, TIDE MAY BE TURNING AGAINST POLLUTERS**

1	2	3	4	5	6	7	8	9	10
C	A	A	B	C	A	B	B	A	C

11	12	13	14	15	16	17	18	19	20
A	C	B	B	A	A	B	B	C	A

1	2	3	4
B	A	B	C

APPENDIX E**ANSWER SHEET TEXT E
THE CASE FOR PRIVATISATION**

1	2	3	4	5	6	7	8	9	10
A	C	C	C	B	B	C	A	A	B

11	12	13	14	15	16	17	18	19	20
B	A	A	C	B	A	C	B	C	B

1	2	3	4
B	B	C	A

APPENDIX F**ANSWER SHEET TEXT F
COMPORTAMENTO MONOPOLISTICO**

1	2	3	4	5	6	7	8	9	10
B	A	B	B	B	B	C	C	B	B

11	12	13	14	15	16	17	18	19	20
A	B	B	C	B	A	C	B	B	A

1	2	3	4
A	B	B	B

APPENDIX G**ANSWER SHEET TEXT G
RATE HIKES A CONCERN**

1	2	3	4	5	6	7	8	9	10
A	C	A	B	C	B	B	A	B	B

11	12	13	14	15	16	17	18	19	20
A	B	A	C	C	B	A	A	B	B

1	2	3	4
A	B	B	C

University of Cape Town

APPENDIX H

QUESTIONARIO 1

CONOSCENZE PREGRESSE E STRATEGIE METACOGNITIVE NELLA LETTURA DI TESTI DI DIVERSO GENERE PER SCOPI ACCADEMICI E PROFESSIONALI. LA COMPrensione DI TESTI DI ECONOMIA DA PARTE DI DISCENTI ITALIANI.

Sbarrare le risposte scelte con una crocetta

STRATEGIE COGNITIVE APPLICATE ALLA LETTURA DI UN TESTO IN ITALIANO

Mentre leggo un testo di cultura generale o di un manuale di economia in lingua italiana

	Mai	Quasi mai	Non so	Quasi sempre	Sempre
1. uso le mie conoscenze pregresse generali					
2. uso le mie conoscenze concettuali della material					
3.collego le mie conoscenze pregresse generali alle concettuali per capire un testo					
4. faccio delle pause valutando ciò leggo					
5. rileggo ciò che non ho capito in un testo					
6 leggo più lentamente quando un testo è per me difficile					
7. tendo a leggere ad alta voce quando un testo è difficile					
8. cerco di indovinare il significato delle parole sconosciute					
9. utilizzo delle mie conoscenze grammaticali e lessicali per capire un testo					
10. utilizzo insieme le mie conoscenze concettuali, generali, lessicali e grammaticali					
STRATEGIE METACOGNITIVE APPLICATE ALLA LETTURA DI UN TESTO IN ITALIANO					
	Mai	Quasi mai	Non so	Quasi sempre	Sempre
11.Osservo il testo in generale prima di iniziare a leggere					
12. leggendo il titolo e la prima riga del testo riesco ad anticipare cosa troverò nel testo					
13. quando leggo il titolo e la prima riga attivo le mie conoscenze concettuali sull'argomento					

14. quando leggo il titolo attivo le mie conoscenze pregresse generali e concettuali sull'argomento					
15. noto le caratteristiche del testo che mi aiutano a classificarlo in uno specifico genere					
16. riesco ad individuare i punti principali e quelli di supporto nel testo					
17. mi riferisco alla costruzione sintattica del testo					
18. per capire meglio l'argomento integro gli elementi visivi nella lettura del testo (grafici, tabelle, ecc)					
19. se non capisco qualcosa nel testo interrompo la lettura					
20. se non capisco qualcosa nel testo, continuo la lettura e cerco di capire il senso generale del testo					
21. se qualcosa non ti è chiaro, riesco ad indovinare il significato del testo facendo riferimento alle mie conoscenze concettuali					
22. riesco a confermare le mie previsioni sul contenuto del testo					
STRATEGIE COGNITIVE APPLICATE ALLA LETTURA DI UN TESTO IN INGLESE					
Mentre leggo un testo di inglese 'generico' o di economia	Mai	Quasi mai	Non so	Quasi sempre	Sempre
23. leggendo un testo in inglese 'generico' ricorro alle mie conoscenze pregresse generali					
24. leggendo un testo di economia in inglese ricorro ai concetti economici studiati in italiano per aiutarmi a capire					
25. leggendo un testo di economia presto attenzione al lessico specialistico per aiutarmi a capire					
26. leggo più lentamente quando ho problemi di comprensione					
27. leggo un testo a voce alta quando non ho capito qualcosa					
28. faccio delle pause valutando ciò che sto leggendo					
29. rileggo ciò che non ho capito in un testo					
30. cerco di indovinare il significato delle parole sconosciute					
31. utilizzo le mie conoscenze grammaticali e lessicali per capire un testo					
32. utilizzo insieme le mie conoscenze					

concettuali, generali, lessicali e grammaticali					
STRATEGIE METACOGNITIVE APPLICATE ALLA LETTURA DI UN TESTO IN INGLESE					
	Mai	Quasi mai	Non so	Quasi sempre	Sempre
33. prima di iniziare a leggere, osservo il testo in generale					
34. leggendo il titolo e la prima riga cerco di anticipare ciò che seguirà nel testo					
35. leggendo il titolo, attivo le mie conoscenze pregresse concettuali sull'argomento					
36. quando leggo il titolo attivo le mie conoscenze pregresse generali e concettuali sull'argomento					
	Mai	Quasi mai	Non so	Quasi sempre	Sempre
37. noto le caratteristiche del testo che mi aiutano a classificarlo in uno specifico genere					
38. individuo i punti principali e quelli di supporto nel testo					
39. mi riferisco alla costruzione sintattica del testo					
40. per capire meglio l'argomento integro gli elementi visivi nella lettura del testo (grafici, tabelle, ecc)					
41. collego l'informazione che segue con quanto letto fino a quel punto					
42. rifletto sul contenuto e il relativo significato del testo					
43. collego i concetti appresi in italiano con quanto leggo in un testo di economia in inglese					
44. riesco a distinguere bene cosa ho capito da quanto è invece poco chiaro nel testo					
45. se non capisco , continuo a leggere il testo sperando di coglierne il senso					
46. rileggo la parte che non ho capito					
47. leggo prima e dopo del punto che non ho capito					
48. cerco alcune parole che non capisco nel vocabolario					
49. cerco di ricordarmi il significato delle parole					
50. faccio attenzione alle strutture grammaticali					
51. faccio più attenzione alle costruzioni sintattiche					

52. faccio più attenzione alle costruzioni sintattiche					
53. cerco di costruire il significato pensando ad una possibile similitudine della struttura dei testi in italiano					
54. faccio più attenzione all'organizzazione del testo che ne contraddistingue il genere					
55. non penso a collegare i concetti che già conosco in italiano a quelli nel testo					
56. non penso a collegare le mie conoscenze generali pregresse all'argomento che sto leggendo					
57. mi soffermo su ogni parola					
58. inizio a tradurre parola per parola					
59. non leggo paragrafo per paragrafo					
60. se non capisco qualcosa non continuo a ere					

APPENDIX I

QUESTIONARIO -- QUESTIONNAIRE

LEGGERE E APPRENDERE L'INGLESE NELLA FACOLTA' DI ECONOMIA - UNIVERSITA' DI FIRENZE – ITALY

READING AND LEARNING ENGLISH AT THE FACULTY OF ECONOMICS – UNIVERSITY OF FLORENCE - ITALY

Scegliere una risposta per ciascuna domanda sbarrandola con una crocetta

Choose one answer per question indicating it with an x

READING HABITS

- | | | |
|---|-----|-----|
| 01. Leggi solo i testi in inglese richiesti dal programma accademico? | Ísì | Íno |
| Do you read in English only the texts required by the academic curriculum? | | |
| 02. Leggi altri testi specialistici in inglese fuori dal contesto accademico? | Ísì | Íno |
| Do you read specialised texts in English outside the academic context? | | |
| 03. Se sì, giornali specialistici? | Ísì | Íno |
| If yes, specialised newspapers? | | |
| 04. Riviste specialistiche? | Ísì | Íno |
| Specialised journals? | | |
| 05. Articoli di tipo economico/d'affari su internet? | Ísì | Íno |
| Economic/business articles on internet? | | |

READING MOTIVATION

- | | | |
|--|-----|-----|
| 06. Leggi in inglese perché ti permette l'accesso a materiale specialistico aggiornato? | Ísì | Íno |
| Do you read in English because it allows you to access updated specialised material? | | |
| 07. Pensi che sia utile leggere in inglese anche giornali, riviste, articoli da internet non specialistici? | Ísì | Íno |
| Do you think it is useful to read also generic newspapers, journals and articles on the net? | | |

READING STRATEGIES AND MOTIVATION AT SECONDARY SCHOOL LEVEL

- | | | |
|--|-----|-----|
| 08. Nella scuola superiore avevi appreso <u>strategie di lettura</u> per testi in italiano ? | Ísì | Íno |
| In secondary school did you learn to apply <u>reading strategies</u> to texts in Italian? | | |
| 09. Nella scuola superiore avevi appreso <u>strategie di lettura</u> per testi in inglese ? | Ísì | Íno |
| In secondary school did you learn to apply <u>reading strategies</u> to texts in English? | | |
| 10. Nella scuola superiore avevi appreso che dovevi tradurre ogni parola per capire un testo in inglese? | Ísì | Íno |
| In secondary school did you learn to translate word by word to understand a text in English? | | |
| 11. Nella scuola superiore eri motivato a leggere ed apprendere in inglese? | Ísì | Íno |
| In secondary school were you motivated to read and learn in English? | | |

READING STRATEGIES AT UNIVERSITY LEVEL

- | | | |
|--|-----|-----|
| 12. Durante il corso universitario di inglese hai appreso strategie di lettura? | Ísì | Íno |
| During the university course of English have you learnt reading strategies? | | |

13. Se sì, quando leggi in inglese usi strategie di lettura che non usi invece quando leggi in italiano?	Ì sì	Ì no
If yes, when you read in English do you use reading strategies you otherwise do not implement when reading in Italian?		
14. Cerchi di capire di cosa parla un testo in inglese dal suo titolo?	Ì sì	Ì no
Do you try to understand what a text is about by its title?		
15. Quando leggi un articolo di economia/affari in inglese per capire i concetti cerchi le parole chiave nei paragrafi?	Ì sì	Ì no
When you read an economic/business article in English do you search for keywords in the paragraphs to understand the concepts?		
16. Per costruire il significato del testo in inglese cerchi di capire a quale classe semantica o verbale appartengono i termini nel cotesto?	Ì sì	Ì no
To construct the meaning of the text in English do you try to understand which semantic or verbal class the terms in the co-text belong to?		
17. Per capire un testo specialistico in inglese fai riferimento ai concetti di economia/affari che possiedi in italiano?	Ì sì	Ì no
To understand a specialised text in English do you refer to your economics/business concepts in Italian?		
18. Oppure traduci parola per parola l'intero testo?	Ì sì	Ì no
Or do you translate word by word the entire text?		
19. Oppure prima applichi le strategie di lettura eppoi traduci tutto il testo in italiano per sentirti sicuro/a?	Ì sì	Ì no
Or do you first apply reading strategies and then translate the full text to feel assured?		
20. Leggi in inglese e fai riferimento solo alle tue conoscenze più generiche?	Ì sì	Ì no
When you read in English do you refer only to your generic knowledge?		
21. Se leggi materiale in inglese fuori dal contesto accademico applichi le strategie di lettura apprese in classe?	Ì sì	Ì no
If you read outside the academic context do you apply the reading strategies learnt in class?		
LEARNING ENGLISH IN AND/OR OUT UNIVERSITY		
22. Apprendi la lingua inglese solo durante le ore delle lezioni accademiche?	Ì sì	Ì no
Do you learn English only during the academic lecture hours?		
23. Sei favorevole ad apprendere l'inglese come lingua straniera?	Ì sì	Ì no
Are you favourable to learn English as a foreign language?		
24. Sei favorevole ad apprendere più di una lingua straniera, oltre l'inglese?	Ì sì	Ì no
Are you favourable to learn more than one foreign language, in addition to English?		
25. Sei favorevole ad un uso parallelo dell'inglese con l'italiano (non come lingua straniera ma come seconda lingua fuori e dentro l'università)?	Ì sì	Ì no
Are you favourable to a parallel use of English (not as a foreign language but as second language in and out of the university context) and Italian?		
26. Apprendi la lingua inglese anche fuori del contesto accademico?	Ì sì	Ì no
Do you learn English also outside the academic context?		
27. Se sì, guardi film/programmi tv in inglese?	Ì sì	Ì no

If yes, do you watch films/tv programmes in English?		
28. Ascolti musica con testi in inglese?	Ísì	Íno
Do you listen to music with English texts?		
29. Hai seguito/seguirai un corso di lingua inglese all'estero?	Ísì	Íno
Have you attended/will attend an English course abroad?		
30. Interagisci con amici in inglese?	Ísì	Íno
Do you interact with friends in English?		
LEARNING ENGLISH MOTIVATION		
31. Apprendi l'inglese solo perché obbligato/a dal programma accademico?	Ísì	Íno
Do you learn English only because obliged by the academic curriculum?		
32. Per avere maggiori opportunità di lavoro in Italia o all'estero?	Ísì	Íno
To have more job opportunities in Italy or abroad?		
33. Per ampliare le tue conoscenze culturali?	Ísì	Íno
To widen your cultural knowledge?		
34. Per poter comunicare con persone straniere?	Ísì	Íno
To be able to communicate with foreigners?		
35. Per poter viaggiare più facilmente all'estero?	Ísì	Íno
To be able to travel abroad more easily?		
36. Perché ti identifichi con la cultura anglosassone ?	Ísì	Íno
Because you identify yourself with the Anglo-Saxon culture?		
37. Perché ti piace la lingua?		
Because you like the language?		
38. Perché chi parla inglese ha più valore sociale?	Ísì	Íno
Because who speaks a foreign language is ranked higher socially?		
39. Perché tutti dovrebbero saper comunicare in inglese?	Ísì	Íno
Because everyone should be able to communicate in English?		
OPINION ON ENGLISH ECONOMICS COURSES AND SERVICES AT TERTIARY LEVEL		
40. Ritieni che quanto appreso nei corsi di inglese ti possa essere utile fuori dal contesto accademico?	Ísì	Íno
Do you think what you learnt in the English courses could be useful outside the academic context?		
41. Ritieni che quanto offerto nei corsi di inglese sia troppo distante dalle tue future esigenze lavorative?	Ísì	Íno
Do you think the English curriculum does not correspond to your future job exigencies?		
42. Saresti favorevole a più ore settimanali di apprendimento d'inglese?	Ísì	Íno
Would you be favourable to more hours per week to learn English?		
43. I concetti di economia/affari in italiano li hai appresi imparando i concetti a memoria per l'esame?	Ísì	Íno
Have you acquired your economics/business concepts in Italian learning them by heart?		
44. Oppure li hai appresi ricollegandoli a ed espandendo altri concetti specifici già posseduti?	Ísì	Íno
Or have you acquired them by referring to and/or expanding already possessed specific concepts?		

45. Oppure li hai appresi tramite applicazione a casi reali di economia/affari?	Ísì	Íno
Or have you acquired them through practical applications on real economic/business cases?		
46. Sei soddisfatto dei programmi del tuo corso di laurea?	Ísì	Íno
Are you satisfied with your degree curriculum?		
47. Ritieni che i corsi di economia/affari siano troppo teorici?	Ísì	Íno
Do you think the economics/business courses are too theoretical?		
48. Gradiresti dei corsi di economia/affari in inglese in facoltà?	Ísì	Íno
Would you be favourable to economics/business courses in English in the Faculty?		
49. Oppure vorresti maggiore accesso agli scambi di studi Socrates?	Ísì	Íno
Or would you like increased access to the Socrates exchange courses?		
50. Pensi che la facoltà ti offra servizi sufficienti ad agevolarti nello studio?	Ísì	Íno
Do you think the Faculty offers sufficient services to aid you in your studies?		

University of Cape Town

APPENDIX J

INTERVIEW 1 (24/10/2005)

Prof. Marco Bellandi – Political Economics: Micro and Macro Economics – University of Florence – Italy.

Prof M. Bellandi lectures Political Economics: Micro and Macro Economics, a mandatory first year undergraduate course for the degree of Business and Economics. The course is divided among three professors who lecture to about 120 students each. The number of students tends to decrease by 20% toward the end of the course.

1. What do you expect the students to know at the beginning of the course?

I expect them to be able to read, understand and write rather well after attending High School.

2. What is the linguistic level of the text/s (in Italian) which the students have to read?

The text/s read are typical university level ones that is, they present topics by using complex argumentative discourse.

3. Have you noticed if your students have difficulties reading the texts in Italian?

About 20% of the students consider the language used in the texts extremely easy. However, the rest, which is the majority of the students who tend to drop out during the course, find the language too complex and are unable to read and attain meaning, and to understand the abstract economics concepts.

4. How would you typify your students?

The Political Economics Course is attended by a majority of Business students and a minority of Economics students. This imbalance is due to a growing request of the market of graduates with a degree in Business.

One of the main features characterising these Business students is their tendency to be very pragmatic, operative, with practical views in solving most business issues, hence their aversion toward most general abstract knowledge and reasoning. On the contrary, this is a feature which characterises the Economics students, who attend more than one course of mathematics which requires the capacity to achieve higher levels of abstraction and to broaden their views and knowledge.

The Business undergraduate course, by contrast, includes fewer hours of maths, a subject which is attended unwillingly. As mentioned, this implies the need for less abstraction on the part of the students. Within this context, the Political Economics course which is primarily based on abstraction, as for instance, the analyses of economic systems, turns into a big issue for the Business students who consequently drop out more easily than the others during the course.

5. Given all this, how do you organise your lectures in order to convey your knowledge to the students?

Firstly, I usually divide my lecture into a theoretical part and a practical application one. I try to attract their attention by presenting the main parts of the lecture which comprise definitions and/or the explanation of an economic theory by using power point. I integrate this explicatory/visual part with further explanations and exemplifications through exercises on the black board with the purpose of rendering the topic clearer. My intent is also to show how a concept is related to another.

Secondly, I pass on to more practical applications which the students appreciate most, since these are part of the post course written examination. Furthermore, I try to “scaffold” the knowledge I convey by providing them with the concepts, explanations, hypotheses and the various practical applications which they can apply and extend one step further on their own to different hypotheses. The reaction on the students part is of a strong resistance to being first of all involved and to reasoning autonomously.

6. But do you interact with your students at some point of your lectures?

Yes. This occurs primarily during the practical applications i.e., for example, while I discuss and calculate an equation on the blackboard, I try to interact with them by constantly asking them to collaborate in confirming the procedure I am following in the calculation. But only few respond, or ask for explanations or questions. I also use asides but with hardly any positive effect. In other words, there is hardly any reaction on their part. They are clearly not used to be involved during their lectures. I believe their behaviour in class or rather their lack of response to interaction during the lectures origins from their years spent at high school and from the style of lecturing which is highly lecturer-centred and perpetuated by nearly all the professors at university. This asymmetrical relation implies that knowledge is simply a-critically transmitted from professor to students. Interestingly enough, both the subject and my attempts to interact in class are evaluated negatively by the students who declare to prefer following lectures without any form of interaction, i.e., passively.

7. What do you expect the students to know at the beginning of the course?

That they should be able to understand and comment a graph, a chart, know what a function is, know how to calculate equations, even if they are initially provided with basic knowledge. However, since equations, graphs are essential to micro and macro economics we always revise them briefly. It is also clear from the start that the Economics students have fewer difficulties

with maths than the Business students, mainly because the first have usually attended a “Liceo”³² whereas the latter mostly skills oriented high schools where more practical knowledge is developed.

8. How are the concepts learnt?

The tendency on the part of the students is to try to learn as much as possible by rote. However, I attempt avoiding them doing so by setting an intermediate practical test during the semester and another one at the end of the course. If they pass the two written exams they do not sit for the oral exam.

The oral exam does not include standard questions which can be answered by rote. On the contrary, the questions are focussed on concepts which imply having to show one's capacity to reason, to apply actively a personal interpretation of economic issues.

9. At the beginning of the course you expect students to know how to interpret and comment graphs, etc. Why do visuals cover such an essential role?

Because visuals help students to understand intuitively a complex quantitative relation between economic variables. A graph per se is not important. What is relevant is:

- A) its introductory function to the study of quantitative relations
- B) its representation of many relations of the economic variables

There are also equations, tables, algebra that have the same function.

Visuals, in general, are an important aid to the first year students attending the course which is, as mentioned, an introduction to micro and macro economics, to fundamental intuitions, hypotheses, basic models and their relations to some real and economic phenomena defined on the bases of some equations of equilibrium. Within this context, visuals are essential for first year students to understand theories and variables. Nevertheless, visuals have some drawbacks. For instance, they limit the analysis to the relation between two variables and the relation cannot be extended to many variables, so it is a limitation. Moreover, because first year students are not inclined to use mathematical procedures and abstract knowledge, visuals acquire an overtly excessive role compared to economic tradition.

10. How are the students tested (written and/or oral test?)

As said, students have to write two practical tests and if they fail these, they have to sit for an oral exam. This consists of showing one's knowledge of core concepts and the capability to provide a personal interpretation of the latter. In addition, students have to write and comment a graph or any other visual. Some fail and take the exam a second time attaining most of the time

³² These schools (Scientifico and Classico) include many hours per week of maths and other subjects, as for instance philosophy, Latin, ancient Greek, etc. which train students to reason at higher abstract levels by developing their conceptual knowledge.

the minimum required to pass but showing they have not internalised the knowledge, having learnt by rote.

11. What do you expect the students to know by the end of the course?

To have learnt a whole series of concepts discussed during the course; the capacity to carry out tasks and solve problems which signals the student's preparation and ability to pass the post-course examination. This capacity entails two aspects: A) a cultural one, in that they should have acquired the capacity to decide how to solve not only single economic problems but also those common to a wide range of economic agents, i.e. to have developed a wider perspective of micro and macro economics; an organised system of concepts to interpret and relate to real and operational economic problems. B) a practical one that is, the application of the concepts learnt during the course to solve future economic problems even if, in the case of the Business students, this is the only Political Economy course and exam they have to write and pass orally.

It is important to stress that only a minority of students achieves such goals, whereas the majority makes an effort just to pass the exam.

APPENDIX K

INTERVIEW 2 (22/11/2005)

Dr. Domenico Colucci – Mathematics - University of Florence – Italy.

Dr. D. Colucci lectures Mathematical Methods, a mandatory first year undergraduate course for the degree of Economics - SECI. The course is divided among three professors who lecture to the various degrees in which economics is divided. The course is primarily set for first year students but it is also attended by third year students and by those enrolled in their two year post graduate course ESA. The number of students at the beginning of the first semester tends to vary between 60-70 but by the end they decrease to about 50. Credits: 60.

1. What do you expect the students to know at the beginning of the course?

I expect them to have an elementary knowledge of algebra, of functions, and to be able to process all types of equations. All these basic parts of the programme are revised in a pre-course held before the students start attending the proper course. The pre-course is not followed by an examination but by a self-test which allows a self monitoring on the part of the students.

2. What is the linguistic level of the text/s (in Italian) which the students have to read?

The text the students have to refer to are tertiary level.

3. Do your students have difficulties reading the texts in Italian?

About 20% of the students have not particular difficulty reading the texts used in the course. However, the rest sometimes do not catch at once the meaning of the concepts presented also because mathematics requires the capacity to attain a certain level of abstraction.

4. How would you typify your students?

Most students would prefer not having to attend the course, since mathematics is not one of their favourite subjects. Overall their attitude is one which characterises high school students in the sense that they would prefer not being involved in any form of interaction in class. When we correct any practical applications or exercises they have done at home and I decide to call one of them at the board to discuss together what and why particular procedures were required, they sit in silence with their eyes down hoping not to be called. Their behaviour is unmotivated, since they are not evaluated as at the post-course examination. By contrast, I believe this to be a very useful form of interaction for it allows also though direct questions, to gain a view of the level of their preparation and to underscore the most frequent difficulties they encounter.

5. How do you organise your lectures in order to convey your knowledge to the students?

I do not have a fixed order that is, I can begin my lecture by explaining a theory or by starting off with a practical application from which I then move on to the theoretical part, but exercises are

always an essential part of all my lectures. Moreover, in one case or the other, I always refer to the students by asking them if they have understood, if they agree with the procedure I am following. Unfortunately, I usually do not receive any feed back from them, so I ask them individually for a comment or I call one of them to the blackboard.

6. So, do interact with your students during your lectures?

Yes, as I said, as much as possible, because by interacting I can understand whether what I have explained is sufficiently clear or not. The students do not study after every lecture but they just attend the course and this increases their problems, since maths, unlike other subjects cannot be learnt by rote. On the contrary, it is a constructive subject which requires being “built” step by step and internalised. For this reason carrying out all the practical applications is crucial to apply and test one’s conceptual knowledge. Every week I assign them a number of problems to solve providing them with specific indications which may help them, but due to schedule reasons, the tasks are not corrected each time. So, if the students do not ask for clarifications I proceed with the programme.

7. How are the concepts learnt?

Given that mathematical concepts cannot be studied by rote, students must dedicate much time to practical tasks. However, students always experience a phase of constructive lack of understanding during which they eventually ask for explanations because they are totally lost. If, in fact, the subject has not been processed gradually, it can turn into “another language”, since the course is divided into two parts: 1) one on algebra and 2) another on differentials. For the latter, conceptual background knowledge is necessary, whereas the first is self-contained, i.e. students need to learn to process linear equations. Hence, if students attend and can expand their initial conceptual knowledge to new formal structures, they should pass the exam easily. But those that cannot use and re-elaborate their prior conceptual knowledge by building on new blocks of knowledge the exam turns into a serious issue. This is one of the crucial features of mathematics wherein fundamental concepts are constantly adapted and linked to new ones (one of many examples is the concept of limit), and wherein if one is incapable of attaining a certain level of abstraction, s/he encounters obstacles.

It is relevant to stress that those who can expand their conceptual knowledge flexibly are a small minority, the majority being totally incapable of reasoning autonomously. This deficiency is mainly due to the superficiality in which the students have been taught in high school. Maths, by contrast, requires one to develop a formal structured method of reasoning.

8. You mentioned that you often start a lecture from a practical application which are visuals. Why do visuals cover such an essential role?

Because they are essential to understanding. When we are often working on algebraic definitions, geometric visibility is promptly provided on the blackboard, otherwise the topic would be too complex for the students. Unlike other subjects, though, it is useless providing ready made visuals on power point or transparencies. In maths visuals are a fundamental part of the subject; they are not a mere integration to an explanation. Therefore, they must be drawn and discussed on the spur of the moment for the reason that frequently we start from a graph and process a series of calculations before reaching a conclusion. One of the tasks on the part of students is not only to elaborate calculations but to develop graphs.

9. How are the students tested (written and/or oral tests?)

At the end of the course the students write an exam. If the mark obtained is fairly high, the oral exam is not mandatory. As a consequence, a very low number of students sit for the oral exam. The written exam contains closed and open ended questions, which imply showing one's theoretical and practical knowledge, i.e. the ability of showing practically that one has understood the theoretical part. The oral exam is taken to increase one's mark on the written exam.

10. What do you expect the students to know by the end of the course?

At the end of the course, on a conceptual plane, students should have learnt the fundamentals of differential calculations, the functions of variables, essential features of linear algebra, etc. On a methodological plane, instead, I expect them to have learnt to show what a proposition is from a logical-mathematical perspective. This, generally speaking, reflects how reasoning in maths has to be rigorous, critical, controlled.

APPENDIX L